



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>





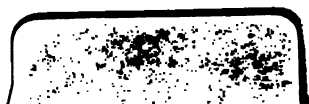
L Eng. C.24 d
Patents 6

OW.U.K.

100

L.L.

W. 5









REPORTS
AND
NOTES OF CASES
ON
LETTERS PATENT FOR INVENTIONS.

By THOMAS WEBSTER, Esq.

BARRISTER-AT-LAW.



THOMAS BLENKARN, LAW BOOKSELLER,

(LATE CROFTS & BLENKARN.)

19, CHANCERY LANE:

A. MILLIKEN, DUBLIN; AND THOMAS CLARK, EDINBURGH.

1844.

LONDON :
PRINTED BY A. SWEETING, MARTIN'S BUILDINGS, HOLBORN.



PREFACE.

THESE reports and notes of cases on letters patent for inventions are intended to comprise the authorities from which the principles and practice of this branch of the law are derived, and to which recourse must be had in determining the various questions which arise in connexion with those subjects.

Such questions have reference to the general principles of the law, to the practical application of those principles to the subject of inventions, and to matters of practice in soliciting letters patent, or in the extension, protection, and enjoyment, of the rights and property thereby created.

These general principles are derived from that part of the old common law which controlled and directed the prerogative of the crown in its grants of exclusive privileges. The exercise of that prerogative in granting lands, offices, and other things of a similar nature, was well understood and defined, but the peculiar nature of the subject, no less than the manner in which the rights and privileges so created were to be enjoyed, occasioned great difficulties in the application of the principles of the old common law to new inventions.

It has not been unusual to refer to the saving clause of the Statute of Monopolies as the origin, and to the decided cases since that statute as the only authorities in illustration, of this branch of the law. But the statute itself, in declaring that a particular class of grants and certain letters patent, excepted from its operation, should be and remain of like force and effect as if that act had never been made, distinctly recognises the existence of an old common law, which, as modified by that statute, constitutes the present law of letters patent for inventions.

The principles of that common law are not matter of doubt or

uncertainty. The case of monopolies, argued and determined in the Exchequer Chamber, in the time of Elizabeth, exhibits the common law of the realm in respect of monopolies generally: the early letters patent, particularly those specially excepted from the operation of the Statute of Monopolies, show the suggestions and considerations upon which the crown then acted in making those grants, and the manner in which the privileges so granted were to be enjoyed. The Reports from the Committee of Grievances, as recorded in the Journals of the House of Commons, show, not only the manner in which the prerogative was abused, and the necessity which existed for the interference of the legislature, but explain the introduction of several of the special clauses contained in the latest of the excepted patents, and which was granted while the bill of monopolies was under the consideration of the legislature—particularly the clauses permitting the importation of glass from the realm of Scotland, or foreign parts beyond the sea, and saving any objection to the grant on account of the size of the furnaces or the kind of glass not being described—clauses which would appear to have been introduced to obviate objections raised by the committee.

These early letters patent, when viewed in connexion with each other, and with the history of the times, distinctly exhibit the manner in which the prerogative of the crown could by law be exercised, before the passing of the Statute of Monopolies. They show that in many cases the grantee, or some at least of the grantees, had no share as an author of the invention, but that any claim which could be made rested simply on having contributed to its introduction—that some (in the words of the report of the case of Monopolies) by their wit and invention, others by their charge and industry, had so contributed. It appears from the Journals of the House of Commons, that the most absurd constructions had been put on the word ‘invention;’ and from both the above sources, that patents were granted for twenty-one years, or longer periods.

The Statute of Monopolies enacted that the grantee must be the true and first inventor; that the subject-matter must be some manner of manufacture; that the term must not be for a longer period than fourteen years; changing and declaring the common law in these respects only, but leaving its principles and practice in other respects as they were before.

The only change introduced by the statute in the principles of the law was in respect of the grantee; but the old common law has been restored in a great measure by the construction

which has been put upon the statute, which is held in this respect not to apply to inventions, the knowledge of which is derived from abroad; so that, he who introduces an invention into this country from abroad is the true and first inventor within the meaning of the statute, and may still be the grantee of letters patent for such invention.

But whether the grantee be the true and first inventor in the literal sense of the terms, or in the constructive sense, as the introducer of an invention from abroad, it must always be remembered that the principle upon which he rests his title is the introduction of the invention; and though public policy may require the restriction imposed by the statute, the old common law of the realm, and the uniform tenour of the acts of parliament for confirming or extending patent rights, show the introduction of the invention to be the real consideration upon which these exclusive privileges are founded.

The acts of Parliament for conferring on individuals rights and privileges of the same nature as those granted by letters patent, constitute a class of authorities to which little attention has hitherto been directed. These appear to be valuable, not only in illustration of the principle just adverted to, but on account of the variety of special clauses which they contain for ensuring to the party, and to the public, under the peculiar circumstances of each case, their mutual and respective rights.

The letters patent, prior to the Statute of Monopolies, set forth in great detail the reasons for the grant, or the grounds and conditions upon which it was made; thus the general principles of the common law as to avoiding grants from the crown, viz. false suggestion and failure of consideration, of which the latter in general involves the former, would, when necessary, take effect. These principles are in no respect affected by the Statute of Monopolies; and if the grantee be not the true and first inventor, or if the invention be not new within the meaning of the words of the statute, or not useful, or disadvantageous instead of beneficial to the public, the grant, having been made on suggestions that are false, and considerations that have failed, may be avoided.

The early letters patent, it will be observed, contain no provision for ensuring to the public the knowledge of the invention, and, consequently, if the grantee kept his secret, he might, in fact, enjoy his monopoly for a much longer period than the term of the letters patent. The inconvenience of this state of things seems to have been felt, since an act of the Commonwealth con-

tains a proviso, that the inventor should take apprentices during the last seven years of the term, and teach them the knowledge and mystery of the invention. Further, it was unjust to the public to confer powers excluding them from participating in an invention without minutely defining and explaining what the invention was. These and other inconveniences were effectually obviated by a proviso introduced into all letters patent since the end of Anne's reign, requiring the grantee particularly to describe and ascertain the nature of his invention, and in what manner the same is to be performed. This proviso, which gave rise to the specification, not only imports two conditions, the non-compliance with either of which will be ground for avoiding the letters patent; but if both be properly complied with, effect is given to the conditions of validity at common law, and under the statute, since the invention really claimed being known, it may be further ascertained whether it is new and useful, and whether the grantee is the true and first inventor.

The specification may fail to satisfy the proviso in either of the two following respects: first, it may not particularly describe and ascertain the nature of the invention; that is, what is intended to be claimed may be left in uncertainty; or, secondly, it may not describe and ascertain in what manner the invention is to be performed, with sufficient particularity to enable persons properly qualified, to practise the invention. In an advanced state of the arts and manufactures, inventors are peculiarly liable to fall into both these errors; the changes marking the progress of invention at such periods, will generally be small, but the requisites of the proviso will, nevertheless, frequently not be complied with, unless a comprehensive view of the whole manufacture be given and many parts or processes described, in respect of which no claim is intended to be made; but if such explanatory matter be not disclaimed, or if the claim be not confined to the change, however minute, which is the essence of the invention, the nature thereof will not be ascertained with the requisite certainty. Again, inasmuch as ordinary and well-known processes or parts need not be described, an inventor, or a person well acquainted with the subject, is apt to presume too much on the knowledge of others, and so fail in the second respect to satisfy the proviso.

A review of the cases will show that whatever the form of the objection to a patent, the real defect has generally been in the specification, since it has very rarely happened that an invention has not, in fact, existed, in respect of which, if pro-

perly described and claimed, a patent might not have been sustained.

The specifications in the following pages, present instances of both the defects just alluded to; and the practical operation of Lord Brougham's act, whereby some defects may be amended, shows the truth of the preceding statement as to their character, for, in a great many cases since that statute, in which the patentee has failed in the first instance on a trial at law, he has, nevertheless, succeeded in amending the specification, so as to secure the enjoyment of the substantial part of his invention.

The particular subject-matter or object of the application of these general principles is defined and pointed out by the statute. It is not for every invention that letters patent can be granted, other means of protection being provided for some, as for instance, for designs for articles of manufacture; but the inventions must satisfy the words "any manner of new manufactures" as defined and explained by the subsequent cases. And in determining what species of invention is within the intent and meaning of the statute, it will not be necessary to rely on those patents only which have occupied the attention of the courts of law, but regard should also be had to those which have been confirmed or extended by special acts of parliament, or on the recommendation of the Judicial Committee of the Privy Council, and to those also which have benefitted the trade of the country, which have been acquiesced in by the public, or have been enjoyed by the grantees without effective resistance throughout their whole term, and in respect of which considerable sums of money have been paid by licensees.

The specifications contained in the following pages will afford the means, not only of ascertaining the subject-matter of those letters patent which have occupied the attention of the courts of law, of the legislature, and of the committee of the privy council, but will show to inventors the nature and requisites of those instruments upon which, as experience shows, the validity of their patent will most frequently depend.

It would be foreign to the present occasion to dwell in any detail on the mixed questions of fact and of law which occur in the application of the preceding principles, or on those which relate to the granting of letters patent—to the remedies for infringement—to the pleadings, and notice of objections under the statute—to amendment by disclaimer and memorandum of alteration—to the confirmation of existing, or the granting of new letters patent, on the recommendation of the judicial com-

mittee of the Privy Council—to, the forms and effect of deeds of license, the assignment of shares in a patent, and the partnerships to which they give rise; the cases on these and other subjects may be readily referred to by means of the index; the practical proceedings connected with these matters, together with the requisite and usual forms and instruments, will be found under their proper titles in my work on the Law and Practice of Letters Patent for Inventions.

The increased protection now afforded to patentees in the enjoyment of their exclusive privileges, has given additional security and value to property in patents, and the consequence is, that questions of a novel nature, or to which attention has hitherto been but little directed, are occurring—for instance, as to the authority of letters patent in many of the colonies and possessions abroad, as to the import of the words ‘within this realm’ in the statute of monopolies, and as to the validity of letters patent for England, Scotland, Ireland, the colonies, plantations and possessions abroad, in respect of inventions known and in use at the time of the grant in some place to which the authority of the crown extends—the determination of which interesting and curious questions must depend on the principles to be derived from the general tenour of authorities, and on considerations of public policy.

The earlier cases and statutes are arranged in the following pages in chronological order, and this arrangement will be found materially to elucidate the origin and progress of the law of patents when in its infancy and until the close of the last and the commencement of the present century, since which period the principles applicable to that subject have been well defined. With respect to the more recent cases contained in the following pages, the same plan of arrangement could not be pursued; the various proceedings on each patent follow immediately after the specification in the order in which they actually occurred.

The recent statute has given rise to proceedings of great importance to the public as well as to inventors, for the confirmation and prolongation of patent rights; and the following pages contain a report of all the cases on those subjects which have been heard before the Judicial Committee of the Privy Council.

T. W.

April, 1844.

NAMES OF CASES.

* * Where several references occur in the following List, the first after the name is generally that of the principal Report of the case.

Aberdeen, Incorporate Trades of, *v. Magistrates and Guildry*, 435.
 Alcock *v. Cooke*, 42, *n.* 196, *n.*
 ———, *ex parte* Henson, *in re*, 432.
 Allin (Alleyne), *Darcy v.*
 Alton woods, case of, 41, *n.*
 Amatt, *Cartwright v.*
 Andrews *v. Bond*, 264.
 Annandale, *Brown v.*
 Arkwright *v. Mordaunt*, 59.
 ——— *v. Nightingale*, 60, 32.
 ———, *R. v.*
 Aston, *Elliott v.*
 ———, *Saunders v.*

Barclay, *Morton v.*
 Barker and Harris *v. Shaw*, 126.
 Barnsley, *Russell v.*
 Baskett *v. Watson*, 48.
 Bateman, *Walton v.*
 Bate's Patent, *in re* (P. C.), 739.
 Beck, *ex parte*, 430.
 Benyon, *Campion v.*
 Berger, *Jones v.*
 Beverley, *Crossley v.*
 Bickford *v. Skewes* (K. B.), 214, 44, 350.
 ——— (Ch.), 211, 50, 238, 281.
 Bircot's case, 5, 7, 27, 31, 51, 397.
 Blackrey *v. Porter*, 261.
 Bleaden, *Galloway v.*
 Bloxam *v. Elsee*, 132, 369, 417, 482.
 Bodmer's Patent, *in re* (P. C.), 740.
 Bond, *Andrews v.*
 Boot, *Hall v.*
 Boulton & Watt *v. Bull* (C. P.), 32, 40, 54, 56, 148, 150, 188, 192, 230, 240, 336, 350, 403, 633.
 Boulton *v. Bull* (Ch.), 212, 232, 281, 282, 285.
 Boulton, *Hornblower v.*
 Bovill *v. Moore*, 241.
 Bowman *v. Taylor*, 292, 288, 290, 291, 295.

Bowman, Collinge v.
 Bramah *v. Hardcastle*, 44, 76, 194.
 Brand, *Gibson v.*
 Branson, *Morris v.*
 Brewster *v. Weld*, 667.
 Brodie, *Williams v.*
 Brown *v. Annandale*, 433, 50.
 Brunton *v. Hawkes*, 42, 71, 114, 187, 196, 205, 395, 401, 409, 515.
 Bull, *Boulton & Watt v.*
 Bulnois *v. Mackenzie*, 260, 266, 267, 268, 332, 545.
 Butler's case, 41.

Campion v. Benyon, 252, 482.
Carpenter v. Smith (N. P.), 530, 44, 493.
 ——— (Exch.), 540, 705, 709.
Carpenter v. Walker, 268.
 Carteret, *Travell v.*
 Cartwright *v. Amatt*, 418.
 Chanter *v. Leese*, 295.
 Clark *v. Laycock*, 441, 452.
 Clement, *Minchin v.*
 Clough, *Spilsbury v.*
 Cochrane (Ld.) *v. Smethurst*, 241.
 Cocker, *Shuttleworth v.*
 Coleman *v. Wathen*, 136.
 Collinge *v. Bowman*, 294.
 Cooke, *Alcock v.*
 Cornish *v. Keene* (N. P.), 501, 44, 216, 493, 535.
 Cornish *v. Keene* (C. P.), 512, 513, 44, 216, 396, 454, 493, 495, 705, 710.
 Cowley, *Russell v.*
 Crane *v. Price* (N. P.), 377, 16.
 ——— (C. P.), 393, 16.
 Craw *v. Ramsay*, 49.
 Crewes, *Kemp v.*
 Crichton, *Russell v.*
 Crofts *v. Peach*, 268, 262, 269.
 Crompton *v. Ibbotson*, 83, 494.
 Crossley *v. Beverley* (N. P.), 106, 146, 404, 483, 484.

- Crossley v. Beverley (K. B.) 112, 83, 97,
 189, 687.

 (Ch.), 119.
 Crossley v. Derby Gas Light Company,
 119.
 Cumberland, Duchess of, *Fraed v.*
 Cutler, *in re*, 418.
 Cutler, R. v.

 Daly, *ex parte* (Irish), 432.
 Daniel, R. v.
 Darcy v. Allin (Alleyne), 1, 5, 26, 29,
 411.
 Davenant v. Hurdis, 2.
 Davis, Lewis v.
 Dearman, Helliwell v.
 De la Rue, Sturtz v.
 Derby Gas Light Company, Crossley v.
 Derosne v. Fairie (N. P.), 154, 141.

 (Exch.), 158, 223, 514.
 Devonshire's (Earl of) case, 41.
 Dewick, Fisher v.
 Dollond's case, 43, 53, 124, 142, 240,
 244.
 Downton's patent, *in re* (P. C.), 565.
 Dudlow v. Watchorn, 516.
 Duverger v. Fellowes, 417.

 Edgebury v. Stephens, 35, 8, 44, 188,
 438, 447.
 Edinburgh, Solicitors of, McAndrews v.
 Eldred, Lowe v.
 Elgie v. Webster, 417.
 Elliott v. Aston, 222.
 Elliston, Murray v.
 Else, R. v.
 Elsee, Bloxam v.
 Erard's patent, *in re* (P. C.), 557.

 Fairie, Derosne v.
 Felton v. Greaves, 42.
 Fisher v. Dewick, 264, 268, 332, 545,
 546, 547, 549, 550, 551.
 Fisher v. Pembley, 514.
 Forman, Thompson & Hill v.
 Forsyth v. Riviere, 97, 128.
 Fothergill, Neilson v.
 Fox, *ex parte*, 431, 51, 406, 413.

 Galloway's patent, *in re* (P. C.), 724.
 Galloway v. Bleaden, 521, 44, 167, 268,
 705.
 Garbett, Roebuck & v. Stirlings.

 Stirlings v.
 Gibbins', Westrupp & patent, *ex parte*
 Wells, *in re* (P. C.), 554.
 Gibson v. Brand (N. P.), 627.

 (C. P.), 631.
 Gibson, Thompson v.
 Gillett v. Green, 271.

 Gillett v. Wilby, 270.
 Good, Protheroe v.
 Greaves, Felton v.
 Green, Gillett v.
 Grimshaw, Huddart v.

 Hague, Losh v.
 Hall v. Boot, 100, 92, 207, 409.
 Hardcastle, Bramah v.
 Hardcastle, Haworth v.
 Hare v. Harford, 291, 281.
 Hare, Taylor v.
 Harford, Hare v.
 Harford, Neilson v.
 Harmar v. Playne (K. B.), 75, 406, 413.

 (Ch.), 212, 230, 232,
 281, 282, 283, 285, 406, 413.
 Harris, Barker & v. Shaw.
 Hart, Wells & Minter v.
 Hastings' case, 6.
 Hawkes, Brunton v.
 Haworth v. Hardcastle, 42, 159, 188,
 192, 480, 486.
 Hayne v. Maltby, 291, 290, 293, 294,
 295.
 Heath v. Unwin, 551.
 Heathcote, *ex parte*, *in re* Lacy, 431.
 Heaton, Jones v.
 Helliwell v. Dearman, 401.
 Henson, *ex parte*, *in re* Alcock, 432.
 Hesse v. Stevenson, 418.
 Heurteloup's patent, *in re* (P. C.) 553.
 Hicks, Lovell v.
 Hill v. Thompson & Forman (N. P.), 232,
 42, 276.

 (C. P.), 239,
 42, 192, 196.

 (Ch.), 229,
 235, 114, 212, 214, 330, 350, 403,
 409, 473.
 Homfray, Neilson v.
 Hornblower v. Boulton, 230.
 Househill Company v. Neilson, 552, 592.

 Neilson v.
 Huddart v. Grimshaw, 85, 188, 192,
 240, 403, 718.
 Humphrey's case, 7.
 Hurdis, Davenant v.

 Ibbotson, Crompton v.

 Jackson, Makepeace v.
 Jefferson v. Morton, 670.
 Jessop's case, 42.
 Johnson, Liardet v.
 Jones v. Berger, 544.
 Jones v. Heaton, 404.
 Jones's Patent, *ex parte* Riddle & Piper,
in re (P. C.), 577.

- Jones v. Pearce (N. P.), 122, 44, 53, 142, 535, 542, 691, 705, 709.
 ——— (Ch.), 121.
 Jupe v. Pratt (N. P.), 144.
 ——— (Exch.), 97, 145.
- Kay v. Marshall, 75, 212, 213, 214, 396, 401, 409.
 Kay's Patent, *in re* (P. C.), 568.
 Keene, Cornish v.
 Kemp v. Crewes, 196.
 Kent's (Earl of) case, 3.
 Kollman's patent, *in re* (P. C.), 564.
- Lacy, *ex parte* Heathcote, *in re*, 431.
 Lainson v. Tremere, 293, 294.
 Langmead, Oldham v.
 Laycock, Clark v.
 Legatt's (Arthur) case, 41.
 Lewis v. Davis, 488, 99, 188, 406, 413.
 Lewis v. Marling (N. P.), 490, 124, 126, 254, 483, 484.
 ——— (K. B.), 493, 42, 126, 159, 188, 190, 191, 192, 196, 259, 483, 484, 535, 542, 705.
 Liardet v. Johnson, 53, 40, 44.
 Losh v. Hague (N. P.), 202, 145, 410.
 ——— (Exch.), 203, 209.
 ——— (Ch.), 200.
 Lovell v. Hicks, 295.
 Lowe v. Eldred, 516.
 Lysaght v. Walker, 516.
- Mc Andrews v. Solicitors of Edinburgh, 34.
 Macintosh's Patent, *in re* (P. C.), 739.
 Macfarland v. Price, 74.
 Mackenzie, Bulnois v.
 Makepeace v. Jackson, 126.
 Maltby, Hayne v.
 Manton v. Parker, 192, 484.
 Marling, Lewis v.
 Marriott, Roberts v.
 Marshall, Kay v.
 Matthey's case, 6.
 May, Morgan v.
 ——— Protheroe v.
 Metcalfe, R. v.
 Minchin v. Clement, 249.
 Minter v. Mower, 138, 44, 76, 281, 396.
 Minter v. Wells & Hart (N. P.), 126, 127, 223.
 ——— (Exch.), 134, 142, 350, 686.
 ——— v. Williams, 135, 7.
 Mitchell v. Reynolds, 5.
 Mitchell, Perry v.
 Monopolies, case of, v. Darcy, v. Allin.
 Moon v. Raphael, 267.
 Moore, Bovill v.
 Morgan v. May, 514.
 Morgan's Patent, *in re* (P. C.), 733.
- Morgan v. Seaward (N. P.), 170, 53, 128.
 ——— (Exch.), 187, 42, 44, 71, 110, 128, 270, 405, 427, 484, 536, 541.
 ——— (Ch.), 167.
 Morris v. Bransom, 51, 406.
 Morton v. Barclay, 49.
 Mower, Minter v.
 Murray v. Elliston, 136.
 Mussary, R. v.
- Neild, Sandiford v.
 Neilson v. Fothergill, 287, 278.
 ——— v. Harford (N. P.), 295, 16, 83, 97.
 ——— (Exch.), 331, 328, 16, 66, 79, 83, 97, 173, 237, 260, 267, 412.
 ——— (Ch.) 278, 290, 373.
 ——— v. Homfray, 278, 290.
 ——— v. The Househill Company, 673.
 ——— v. Thompson (L. C.), 278, 50, 238.
 ——— (V. C.), 275.
 ———, R. v.
- Newall, R. v.
 Nickels' Patent, *in re* (M. R.), 650.
 ——— (L. C.), 656.
 Nightingale, Arkwright v.
- O'Brien v. Saxon, 257.
 Oldham v. Langmead, 291, 294.
 Olive, Severn v.
 O'Reilly, *ex parte*, 432, 418.
- Page v. Pearce, 272.
 Parker, Manton v.
 Pearce, Jones v.
 ——— Page v.
 Pears, Watson v.
 Peach, Crofts v.
 Pechey's case, 4.
 Pembley, Fisher v.
 Perry v. Mitchell, 269, 262.
 ——— v. Skinner, 250, 646.
 Philip, Ridgeway v.
 Playne, Harmor v.
 Porter, Blackrey v.
 Potter, Walton v.
 Praed v. Duchess of Cumberland, 514, 516.
 Pratt, Jupe v.
 Price, Crane v.
 ———, Macfarland v.
 ———, Savory v.
 Protheroe v. Good, 212.
 ——— v. May, 414, 295.
- Quarrill's Patent, *in re* (P. C.), 740.
- Ramsey, Craw v.
 Raphael, Moon v.
 R. v. Aires, 670.

R. v. Arkwright, 64, 51, 56, 60, 173,
 245, 246, 409, 441.
 R. v. Cutler, 134, 76.
 R. v. Daniell, 410.
 R. v. Else, 76, 230, 252.
 R. v. Metcalfe, 141, 333.
 R. v. Mussary, 41.
 R. v. Neilson, 665, 486.
 R. v. Newall, 671.
 R. v. Nickels, 627.
 R. v. Walton, 626.
 R. v. Wheeler, 42, 114, 175, 312, 341,
 373, 403, 409, 482.
 Reynolds, Mitchell v.
 Richardson, Universities of Oxford and
 Cambridge v.
 Ridgeway v. Philip, 417.
 Riviere, Forsyth v.
 Roberts's Patent, *in re* (P. C.), 573.
 Roberts v. Marriott, 514.
 Roebuck & Garbett v. Stirlings, 45, 451,
 433, 439, 441, 444, 445, 449, 450, 454.
 ———, 50.
 ———, Stirlings v.
 Russell v. Barnsley, 472.
 Russell v. Cowley (N. P.), 459.
 ——— (Exch.), 463, 465, 51,
 406.
 ——— (Ch.), 457, 471.
 ——— v. Crichton, 677.
 Russell, *ex parte*, *in re* Whitehouse's
 patent (P. C.), 473.
 Sandiford v. Neild, 311.
 Saunders v. Aston, 75.
 Savory v. Price, 83, 159.
 Saxon, O'Brien v.
 Seaward, Morgan v.
 Severn v. Olive, 183.
 Sharp's Patent, *ex parte* Wordsworth,
in re (M. R.), 641.
 Shaw, Barker & Harris v.
 Shuttleworth v. Cocker, 272.
 ——— & Taylor, *ex parte*, *in re*
 Wright's patent, 561.
 Simister's Patent, *in re* (P. C.), 721.
 Skewes, Bickford v.
 Skinner, Perry v.
 Smethurst, Cochrane v.
 Smith, Carpenter v.
 Soames's Patent, *in re* (P. C.), 729.
 Soames (*see* Wilson) v. Tindal, 236, 238.
 Solicitors of Edinburgh, Mc Andrews v.
 Southworth's Patent, *ex parte* Haworth,
in re (P. C.), 486.
 Spilsbury v. Clough, 255, 417.
 Stafford's Patent, *in re* (P. C.), 563.
 Stephens, Edgebury v.
 Stevenson, Hesse v.
 Stirlings v. Roebuck & Garbett, 50.
 ———, Roebuck & Garbett v.

Sturtz v. De la Rue, 83.
 Sutton, Wakeman v.
 Swaine's patent, *in re* (P. C.), 559.
 Taylor v. Hare, 295, 292.
 Taylor & Shuttleworth, *ex parte*, *in re*
 Wright's patent (P. C.), 561.
 Taylor, Bowman v.
 Tennant's case, 125, 188, 190, 240, 244,
 246.
 Thompson v. Gibson, 272.
 ———, Hill v.
 ———, Neilson v.
 Tindal, Soames v.
 ———, Wilson v.
 Travell v. Carteret, 42, 196.
 Tremere, Lainson v.
 Trimley v. Unwin, 267.
 Turner v. Winter, 77, 164, 215, 243,
 350, 482, 492, 622.
 Universities of Oxford and Cambridge v.
 Richardson, 48, 448, 454.
 Unwin, Heath v.
 ———, Trimley v.
 Uther, Webster v.
 Wakeman v. Sutton, 516.
 Walker, Carpenter v.
 ———, Lysaght v.
 Walton v. Bateman, 613, 268, 593, 598.
 ——— v. Potter, 585, 151, 351.
 Watchhorn, Dudlow v.
 Wathen, Coleman v.
 Watson v. Pears, 154.
 ———, Baskett v.
 Webster v. Uther, 128.
 ———, Elgie v.
 Weld, Brewster v.
 Wells, *ex parte*, *in re* Westrupp & Gib-
 bins' Patent, 554.
 ——— & Hart, Minter v.
 Westrupp & Gibbins' Patent, *ex parte*
 Wells, *in re* (P. C.), 555.
 Wheeler, R. v.
 Whitehouse's Patent, *ex parte* Russell,
in re (P. C.), 473.
 Wilby, Gillett v.
 Williams v. Brodie, 75.
 ———, Minter v.
 Wilson v. Tindal, 730.
 Winter, Turner v.
 Wood v. Zimmer, 44, 82, 188, 190, 194.
 Woodcroft's Patent, *in re* (P. C.), 740.
 Wright's Patent, *ex parte* Shuttleworth
 and Taylor, *in re* (P. C.), 561.
 Wright's Patent, *in re* (P. C.), 575.
 Zimmer, Wood v.

REPORTS AND NOTES OF CASES
ON
LETTERS PATENT FOR INVENTIONS.

THE CASE OF MONOPOLIES.

DARCY v. ALLIN.

[An. 44 El. 11 Co. R. 84 : Noy 178.]

THIS was an action for the infringement of letters patent for the sole making and selling of cards, and the declaration stated, that the queen, perceiving that divers subjects of able bodies, which might go to plough, did employ themselves in the art of making of cards, she did, by her letters patent, (13 Jun. 30 El.) grant to Ralph Bowes, that he, by himself, his factors, and assigns, as well denizens as strangers, might buy and provide beyond the seas playing cards, and cause them to be brought into England, or into her dominions, by whatsoever means, and utter, sell, or distribute the same, in gross or by retail; and that he should have the whole trade of making and selling of cards in England, &c., and that none should have the making and selling of cards within her dominions but he, for 12 years, straitly restraining all her subjects, other than the said Ralph Bowes, his factors and assigns, from the making and selling thereof: that by other letters patent, of 11 Aug. 40 El., reciting those above recited, the same exclusive privilege was granted to the plaintiff for 21 years, to begin after the expiration of the former term of 12 years; and that plaintiff was possessed of that interest; and that the former term expired 13 Jun. 42 El.; and that plaintiff after the expiration of the said term, to wit, on the, &c., caused 4,000 gross of cards to be made in London at his charges, amounting to, &c., for the necessary use of the subjects.

That the defendant, knowing the premises, 15 May, 44 El. caused 80 gross of cards to be made, he being a subject, and no assignee or factor to the plaintiff; and 16 May, 44 El., did sell half a gross of playing cards to, &c., for &c., which were not made in England, or brought into England, by the plaintiff or his factor, without license of the queen, or consent of the plaintiff, he being a subject, whereby the plaintiff was defrauded of the benefit which he was to enjoy by his charter, to his damage of £200.

and cannot be suppressed but by parliament, nor a man restrained from exercising any trade but by parliament.

Charter against
freedom of trade
void by statute.

Also such charter, of a monopoly against the freedom of trade and traffic, is against divers acts of parliament, as 9 E. 3, c. 1 and 2, which, for the advancement of freedom of trade and traffic, extends to all things vendible, notwithstanding any charter of franchise granted to the contrary, or usage or custom, or judgment given upon such charters, which charters are adjudged by the same parliament to be of no force or effect.

As to the second question, it was resolved, that the dispensation, or license, to have the sole importation and merchandizing of cards, without any limitation or stint, notwithstanding the act of 3 E. 4, is utterly against law. For it is true that, forasmuch as an act of parliament which generally prohibits a thing, upon a penalty which is popular, or only given to the king, may be inconvenient to divers particular persons, in respect of person, place, time, &c., for this reason, the law has given power to the king to dispense with particular persons; but when the wisdom of the parliament has made an act to restrain, *pro bono publico*, the importation of many foreign manufactures, to the intent that the subjects of the realm might apply themselves to the making of the said manufactures, &c., and thereby maintain themselves and their family with the labour of their hands; now for a private gain to grant the sole importation of them to one or divers, without any limitation, notwithstanding the said act, is a monopoly against the common law, and against the end and scope of the act itself; for this is not to maintain and increase the labours of the poor card makers within the realm, at whose petition the act was made, but merely to take away and destroy their trade and labours, and that without any reason of necessity or inconvenience, in respect of person, place, or time; and the more so, because it was granted in reversion for years, as hath been said; but only the benefit of a private man, his executors and administrators, for his particular commodity, and in prejudice of the commonwealth. And Ed-

Pechey's Case.

ward the 3d, by his letters patent, granted to one John Pechey the sole importation of sweet wine into London; and at a parliament held 50 E. 3, this grant was adjudged void. Also, admitting that such grant or dispensation was good, yet the plaintiff cannot maintain an action on the case against those who import any foreign cards, but the remedy which the act of 3 E. 4. in such case gives ought to be pursued. And judgment was given and entered, *quod querens nihil caperet per billam*.

The above abridgement of the case of monopolies from Coke's reports, presents the principal points of argument which were raised in that important case, and the old common law of the

realm in respect of this kind of monopolies. The exclusive privileges or monopolies to which the preceding case especially refers, are of a very different kind from those which are the subject of

the following pages; and in tracing down the law of letters patent for inventions from the old sources, it is of great importance to point out distinctly the consideration, suggestion, or motive of the grant, as expressed on the face of the letters patent, since this will in general be sufficient to decide their validity or invalidity at common law. In the preceding case, the consideration or motive is the restraining people in one known occupation, in order that they might employ themselves in another (*ante*, 1); and this was to be effected by giving the exclusive privilege of manufacture and sale to certain persons. Such a grant is declared to be a monopoly, and against the common law. The principles of the above decision have been recognised in many subsequent cases of grants or restraints connected with some known manufacture or trade.

In the early glass patent (12 Jac. 1, *post* 17) the consideration was the diminishing the consumption of wood in the manufacture of glass, by granting an exclusive privilege of making glass from wood. This and other grants of the same nature having become hurtful, were in the subsequent glass patent (21 Jac. 1) declared to be thereby void in law; and they were also declared grievances by the committee of the House of Commons (*post* 26). This was obviously a restraint on a known trade, and some of the tests stated above (p. 3.) as incidents of a monopoly are applicable to this case; for the article appears to have become deteriorated in quality and increased in price, and such must in general be the result of all grants of this nature. See also the small patents (*post* 11). As to involuntary restraints on trade, see *Mitchell v. Reynolds*. 1 P. Williams, 183.

Definition of Monopoly. It is important to ascertain the sense in which the term monopoly is used, because it must not be inferred from the preceding case that all monopolies, in the sense in which the term is usually understood, are against law.

Sir E. Coke's definition of a monopoly (3 Inst. 181, c. 85) would appear to include such monopolies only as are on the authority of the preced-

ing case, against the common law and the commonwealth. "A monopoly is an institution or allowance by the king, by his grant, commission, or otherwise, to any person or persons, bodies politic or corporate, of or for the sole buying, selling, making, working, or using of any thing, whereby any person or persons, bodies politic or corporate, are sought to be restrained of any freedom or liberty that they had before, or hindered in their lawful trade.

"For the word monopoly *dicitur à πρὸ τοῦ μόνου, i.e. solo, καὶ πωλίσματος vendere, quod est cum unus solus aliquod genus mercaturæ in universum emit, ut solus vendat pretium ad suum libitum statuens.*"

The latter part of the preceding applied also to the cases of ingrossing, which is the act of the subject between party and party, whereas monopoly is by a patent from the king (2 Hawk. P. C. 293).

The former part of the definition of the term is less comprehensive than the original derivation of the word, as subsequently expressed, warrants, and seems framed as expressing the general result of the preceding case, without reference to the simple meaning of the term, namely, exclusive sale, or to those cases in which exclusive sale may be granted as incident to certain other exclusive privileges of making, working, and using.

It should also be mentioned, that any other patents than those of exclusive sale, and relating to some known trade, were so rare that they all came to be considered of this nature, and the terms 'patent of monopoly' and 'patent of privilege' came into use; the latter being applied to a grant of something besides mere sale, as a grant of privilege for a new invention. Thus Bircot's patent (*post* 31, n. p.) is called by Sir E. Coke a privilege concerning lead ore, and the same distinction may be traced in the debates in the House of Commons on the bill of monopolies. *Post* 27.

The following extract from the report in Noy of the preceding case serves at the same time to point out the true meaning of the term, and as a report of some early cases of legitimate grants.

DARCY v. ALLIN.

[Noy 178.]

"That this is a monopoly patent appeareth by the description Monopoly explained. or definition set forth by Mr. Solicitor, which is thus; it is a monopoly, *cum penes vestram potestas vendendi sit*. But when there be many sellers, although they be all free of one company, as goldsmiths, clothiers, merchants, drapers, tailors, shoemakers, tanners, and such like, who have settled governments, and wardens and governors, to keep them in order, they were never accounted a monopoly; which the statute of 5 El. in some sort proveth, because in many of these trades all persons are prohibited to use the same, but only such as have served in the same trade seven years as an apprentice. But if they, or any other like society, should conspire together to enhance the prices of their wares or of their labours, it is a thing punishable by the

common laws, presentable in every court, and to be censured severely in the star chamber. But in this patent the sole and whole traffic for the making, buying, and selling of cards throughout the realm, is given to Mr. Darcy and his assigns only, for 21 years ; which is a plain monopoly patent.

What
monopoly
patent lawful.

“ Now therefore I will show you how the judges have heretofore allowed of monopoly patents ; which is, that where any man, by his own charge and industry, or by his own wit or invention, doth bring any new trade into the realm, or any engine tending to the furtherance of a trade that never was used before, and that for the good of the realm, that in such cases the king may grant to him a monopoly patent, for some reasonable time, until the subjects may learn the same, in consideration of the good that he doth bring by his invention to the commonwealth, otherwise not.

Hastings'
patent.

“ In the 9th Eliz. there was a patent granted to Mr. Hastings of the court : that in consideration that he brought in the skill of making frisadoes, as they were made in Harlem and Amsterdam, beyond the seas, being not used in England, that therefore he should have the sole trade of the making and selling thereof for divers years, charging all other subjects not to make any frisadoes in England during that time, by pain to forfeit the same frisadoes by them made, and to forfeit also 100*l.*, the one moiety thereof to the Queen's Majesty, the other to Mr. Hastings. Upon which patent Mr. Hastings, about 20 years past, exhibited an information in the Exchequer against certain clothiers of Cocksall, for making of frisadoes, contrary to the intent of this patent. To which information, for that it was against law to have such penalties of the goods and 100*l.* to be forfeited by force of a letter patent ; therefore they did demur upon the information, and moved the court ; and the opinion of the court being clear against him, he never went further in his information, but exhibited his English bill in the Exchequer chamber against them ; where, upon the examination of the cause, it appeared that the same clothiers did make baies very like to Mr. Hastings' frisadoes, and that they used to make them before Mr. Hastings' patent ; for which cause they were neither punished, nor restrained from making their baies like to his frisadoes.

Matthey's
patent.

“ Another monopoly patent was granted to Mr. Matthey, a cutler at Fleetbridge, in the beginning of this queen's time, which I have here in court to show ; by which patent it was granted unto him the sole making of knives with bone hafts and plates of latten, because, as the patent suggested, he brought the first use thereof from beyond seas. Yet nevertheless, when the wardens of the company of cutlers did show before some of the council and some learned in the law, that they did use to make knives before, though not with such hafts, that such a

light difference or invention should be no cause to restrain them, whereupon he could never have benefit of this patent, although he laboured very greatly therein.

"Lastly, the monopoly patent granted to one Humphrey, of Humphrey's the Tower, for the sole and only use of a sieve or instrument ^{patent.} for melting of lead, supposing that it was of his own invention, and therefore prohibited all others to use the same for a time. And because others used the like instrument in Derbyshire, contrary to the intent of his patent, therefore he did sue them in the Exchequer Chamber, by English bill. In which court the question was, whether it was newly invented by him, whereby he might have the sole privilege, or else used before at Mendiff, in the west country, which if it were there before used, then the court were of opinion that he should not have the sole use thereof."

The definition of the term monopoly in the preceding extract, is strictly consistent with its original meaning; and the above exposition of the law, and the cases cited, point out the distinction between a monopoly which is void, and a monopoly which is valid. Bircot's case, of a privilege concerning the preparing and melting of lead ore (*post* 31, n. p.), farther illustrates this distinction.

Exclusive sale. These early cases show that other exclusive privileges were associated with that of sale, and it may be suggested whether a grant in which such other privileges are not so associated, would not, on the face of it, be bad in law; as, for instance, the exclusive privilege of sale of an imported article not known in this country as an article of manufacture. The person introducing the manufacture of such article would be entitled to the exclusive privilege of sale of the article so made, on the principle above stated (p. 5); and if he supplied the demand as well as it had been previously supplied by importation from abroad, that is, with an article as good in quality and as cheap in price, it would appear on the authority of the subsequent cases of the salt and glass patents, and on the general policy of the law, that he would be protected in such exclusive sale during a limited period.

The exercise of this privilege is the practical means by which the grant becomes oppressive and prejudicial to the public. It is important, therefore, in tracing down this branch of the common law, to show how cautiously this privilege was guarded in the early grants, and to compare the terms of the earlier letters patent with those of the present day, since much is to be learned from precedents of such long-continued use.

The letters patent consist of a granting and a prohibitory part, and an important distinction is to be observed in the words employed. The salt patents, in the granting part, grant to make, work, and compound the said stuff called salt, and the same so made, wrought, and compounded, to utter, sell, and put to sale; and in the prohibitory part, prohibit the practising, using, and exercising the said invention, omitting the words relating to the sale, which is not therefore expressly prohibited, except as impliedly a part of the using, exercising, and putting in practice, the invention. The same is to be observed

in Dudley's, or the iron patent (*post*, 14, 15,) and in Mansell's, or the glass patent (*post*, 21, 22, 23).

In the letters patent as at present granted, the words utter, sell, and put to sale, are replaced by the word vend, and the letters patent give and grant to make, use, exercise, and vend, in the conjunctive, and prohibit to use, exercise, or put in practice, in the disjunctive. See *Law and Practice*, Pr. F. XIII.

In a case before Lord Eldon (*post*, 48, n.), the question was raised, whether an article for which there was a patent in this country, if brought from abroad, as part of the private effects of a person, could be sold with such effects. Such a sale cannot, it is submitted, be considered as a violation of the exclusive privilege given by the letters patent, any more than the successive sale by different persons of an article originally purchased of the patentee, or the user of such patent article when purchased from the patentee.

The meaning of the word vend was considered in a recent case (*Minter v. Williams*, 4 A. & E. 231, *post*), the question being whether to expose to sale was identical with it, so as to make such an exposure a breach of the letters patent—and they were held not to be necessarily identical. It was suggested by Coleridge, J., whether vend did not rather mean the habit of selling and offering for sale, and this suggestion is supported if we view the word as substituted for the words utter, sell, or put to sale.

Conditions of Validity.—The questions which arise in considering the validity of letters patent are in respect of, 1. the grantee; 2. the term; 3. the subject-matter; 4. the incidents of the subject-matter.

1. The grantee must be the introducer of the invention within the realm.

2. The term must be for some limited period, such as may be sufficient for the instruction of others.

3. The subject-matter must be such as in the result leads to a new trade or manufacture.

4. The subject-matter must also possess the incidents of novelty and utility. Collateral and connected with the incident of utility is the condition that the grant be not prejudicial; which must be judged of by the consequences, according to the circumstances of the case.

The smalt, iron, and glass patents (*post*) show very distinctly the nature of these conditions, the manner in which they were to be complied with, and the consequences of a failure.

The first smalt patent was granted to three, for a term of 21 years, in consideration of their having undertaken to make smalt within England, as good and cheap as that theretofore imported. This grant having become prejudicial, was vacated, and two successive grants made to one of the original grantees, under certain conditions and covenants, to supply the kingdom as well as it was before supplied by importation.

The incident of novelty was in this case satisfied by the introduction and establishment, within the country, of a manufacture of an article previously made only abroad. Smalt was well known, and in constant use within the kingdom, but its manufacture was unknown, or at least not practised therein. The grantees were, therefore, the introducers of a new trade into the realm.

In the case of the iron patent, the grantee appears on the face of the patent to have been the inventor or discoverer of the mode of manufacture, as well as the introducer of a new trade, namely, the manufacture of iron with pit coal. *Post* 16, n.

The grantee of the glass patent was one of the original introducers of the new manufacture of glass with sea or pit coal; and it is recited, that the invention was brought to perfection at his sole expense.

These early patents exhibit distinctly the application to grants of this nature of the well-known principles of the common law, that false suggestion and failure of consideration render a grant absolutely void, in whatever manner, or to whatever extent, such suggestion may be false, or the consideration may fail.

The utility of the invention is distinctly recognised in all of them, as part of the motive or consideration; but this condition would appear to differ from the others, in admitting of degrees. If an invention be totally useless, the purposes and object of the grant would fail, and such grant would consequently be void, not only on the ground of false suggestion and failure of consideration, but also on the ground of its being prejudicial, as having a tendency to stop improvement.

It is important to observe, that the smalt and glass patents recite the previous grants: this would appear to be in pursuance of the statute, 6 H. 8, c. 15, which provides that the previous grant, and its determination, should be recited in any subsequent grant of the same thing. It should also be observed, that the grantee of the 2d and 3d smalt patents, was one of the grantees of the 1st.

The Statute of Monopolies, 21 Jac. 1, c. 3.—The preceding conditions for the validity of letters patent at common law, are materially affected by the statute of monopolies. The grantee must be the true and first inventor, and not the introducer only; the term is limited to 14 years, and the incident of novelty is defined by the words, "which others at the time of the grant shall not use." So that the subsequent grants in the case of the smalt and glass patents, would probably have been void under the words of the statute; the other grantees having used the invention. The other conditions of validity would appear to remain precisely as at common law.

The statute has received a construction which leaves the grantee of letters patent for an invention introduced from abroad in the same position, in this respect, as before the statute; since it has

been held, that the introducer into this country of an invention known only in foreign parts, may be the grantee of letters patent, and a large number of patents are now granted for communications from abroad. See *Edgebury v. Stephens*, *post* 35.

The legislature also has repeatedly recognised the same principle, and granted exclusive privileges and rewards for inventions so introduced, on the ground of the benefit thence accruing to the kingdom. The earliest patents set forth as a principle, the reasonableness of granting such privileges, as a recompence and reward to the authors of useful inventions; and the same principle has been adopted by the legislature, and the Judicial Committee of the Privy Council, in cases of applications for the extension of the terms of such privileges, when the question generally is, as to the amount of the reward already received.

Origin of the Specification.—The most important change made since the earliest times and the statute of monopolies, is the insertion of the clause into the letters patent, requiring the party particularly to describe and ascertain the nature of his invention, and in what manner the same was to be performed. The earliest patent into which this clause appears to have been introduced, was one granted 1st April, 11th Anne: its introduction was not on the authority of parliament, but on that of the law officer of the crown. A fundamental principle of these grants is the instruction of the public; and Sir E. Coke was of opinion, that the term of 14 years was too long, since those who served privileged persons, as apprentices, to learn the inventions, must continue apprentices or servants to the end of the term. In an act of 1651, c. 2 (*post*), granting exclusive privileges to one Buck for 14 years, it is enacted, that Buck and his assigns shall take apprentices after the first 7 years of the term, and teach them the knowledge and mystery of the new invention. The object of that provision, the instruction of the public, is now answered by the enrolment of a specification.

But it must be remembered that, though at common law no such instrument was required to be enrolled, it was, nevertheless, an essential requisite that the party should be in possession of a mode of putting his invention into practice; for otherwise the patent would be void for false suggestion and failure of consideration. See *post* 16, n.

Amendment and Extension Acts, 5 & 6 W. 4, c. 83; 2 & 3 Vict., c. 67.—At common law there was no power of amendment, except in the case of mere clerical errors. This was productive of great hardship to inventors, since it followed from the principle of avoiding a patent on the ground of false suggestion, that a most immaterial matter might render the letters patent for a most important invention altogether void. This state of things has been altered by an act introduced by Lord Brougham, under the provisions of which the letters patent and specification, which is considered as part of the letters patent, may be amended, provided no extension of the exclusive right be thereby conferred.

The same act also provides for another case of great hardship, namely, where the patentee, who is a *bona fide* independent inventor, turns out not to be the true and first inventor of something claimed, by reason of its having been used or published before the date of his patent.

The power of extending the term of letters patent, previously exercised only by the legislature, is by the same act delegated to the Judicial Committee of the Privy Council.

THE SMALT PATENTS*.

Letters Patent, 17th July, 3 Jac. I. to William Twynyhoe, Abraham Baker, and John Artegh.

James, &c., King of England, Scotland, France, and Ire-
land, Defender of the Faith, &c., to all to whom these presents
shall come, greeting. Whereas our trusty and well-beloved sub-
jects William Twynyhoe, Abraham Baker, and John Artegh,
gentlemen, have undertaken, by their own proper labour and in-
dustry, and at their own great charges and expenses, to make, work
and compound, within this our realm of England, a certain blue
stuff called smalt, commonly used by painters and limners,
which hath not at any time heretofore been made, wrought or
compounded, within our said realm of England, or any other
our dominions, and which shall be as good, perfect, and mer-
chantable, as the same or like stuff called smalt made, wrought
and compounded in the parts beyond the seas, and brought
into this realm, are or usually have been, and in such quantity
and proportion as shall be sufficient for the use and employment
of our loving subjects, and as hath been yearly, from time to
time, brought into this realm from the parts beyond the seas;
and further to utter and sell the same at such reasonable rates
and prices as hath been usually paid for the like stuff, brought
into this realm from the parts beyond the seas, for the most
part of seven years now last past; whereby not only great
profit and commodity is very likely to ensue to many our loving
subjects, but also divers of our poor people, for their relief and
comfort, shall be continually set on work and employed in and
about the making, working and compounding of the said blue
stuff; and fit it is that they, the said William Twynyhoe, Abra-
ham Baker, and John Artegh, should receive some convenient
recompense and reward, as well for their great labour, charges
and expenses, in attaining to the skill and art of making, working
and compounding of the said blue stuff, as for the common good,
which by their good endeavours shall thereby ensue to the whole
realm: Know ye therefore, that we, greatly tendering and affect-
ing the public and general good and profit of all our loving
subjects, and intending to advance the said William Twynyhoe,
Abraham Baker, and John Artegh, with some convenient profit
and benefit, according to their just merit, of our especial grace,
certain knowledge, and mere motion, have given and granted,
and by these presents, for us, our heirs and successors, do give
and grant, full, free and lawful power, license and authority
unto the said William Twynyhoe, Abraham Baker, and John

Letters Patent.
Recitals. That in con- sideration of Baker and others having undertaken to make smalt, which was never before made in England,
and as good as that im-ported, and in sufficient quantities;
and to sell the same at such reasonable rates as have been paid therefor during the last seven years; whereby great profit will accrue to many, and divers obtain employment.
And that it is fit that they should be re-warded for their labour, &c.
Granting part.
Grant to them for 21 years to make the smalt,

* The three following cases are printed from copies of the patent rolls at the Rolls' Chapel, with no alteration but in the spelling. Some few

inaccuracies appear in them, but what is intended or omitted will readily suggest itself.

Artegh, and every of them, their and every of their executors, administrators and assigns, that they and every of them, their and every of their executors, administrators and assigns, by themselves or any of them, or by their or any of their deputies, factors, assigns or servants, and none other, shall or may at all times, and from time to time, during the term of one-and-twenty years, next and immediately coming after the date hereof, in all and every county, city, town corporate, and other towns, villages, hamlets, and other places, exempt as not exempt, make, work and compound the said stuff called smalt; and the same so made, wrought and compounded, as aforesaid, by themselves or any of them, their or any of their executors, administrators or assigns, or any of them, or their or any of their deputies, factors and servants, and every of them, during the term aforesaid, to utter, sell and put to sale the said stuff called smalt, or any part thereof, to any painters, limners, or other persons whatsoever, within this our realm, or any part thereof, being subjects to us, our heirs and successors, within this realm, or any the dominions thereof, and living under the obedience of us, our heirs and successors, at convenient and reasonable prices and rates; and that the said painters, limners, and other the persons aforesaid, which so shall buy the same stuff called smalt, shall and may lawfully use, occupy and employ the same within this our realm, or any the dominions thereof, in and about painting, limning, or other work or matter whatsoever, any law, statute, act of parliament, proclamation, restraint, or any other matter, cause or thing whatsoever, to the contrary notwithstanding.

and to utter and
sell the same.

That persons
buying the same
may use it.

* * * * *

Provido, that
if grant shall
be prejudicial,
on declaration
thereof, under
privy or great
seal, or by six
of the privy
council, in-
cluding the
Lord Treasurer,
by writing en-
rolled, the grant
shall be void.

Provided always (b) nevertheless, that if at any time hereafter it shall appear unto us, our heirs and successors, that this our present grant shall be any ways prejudicial to our commonwealth or otherwise, that we, our heirs or successors, shall conceive the same to be used to the prejudice of us, our heirs or successors, or to the subjects of us, our heirs or successors, or any of them, that then, and immediately after that declaration thereof shall be made, by us, our heirs or successors, under the privy seal or great seal of us, our heirs or successors, or by any six or more of the privy council of us, our heirs or successors, whereof the Lord Treasurer of England for the time being to be one, in writing to be enrolled in our Court of Chan-

(a) The following is an abstract of the other clauses:—Power to the grantees, and all other persons, to import saffer, or any other stuff, necessary for making the smalt; *Habendum* for 21 years, yielding 20*l.* per annum; all other persons prohibited during the term from making the same; offenders to be subject to fine and imprisonment; the importation of all smalt from any the parts beyond the seas during the said term prohibited; power, with a constable, to enter any shop or

place to search for all smalt imported, uttered, sold or put to sale, contrary to the true meaning of said letters patent; all mayors ordered to assist in every way for the full enjoyment of the right thereby granted.

(b) This proviso, in pursuance of which the letters patent were repealed (*post* 11), is preserved in nearly the same words in the letters patent of the present day. See *Law and Practice*, Pr. F. XIII. n. i.

cery, signifying the same, these our letters patent, and every thing therein contained, shall from thenceforth cease, and be utterly made void and frustrate, any thing before in these presents contained to the contrary notwithstanding. In witness whereof, &c.

Letters Patent, 4 Feb. 6 Jac. I. to Abraham Baker.

After reciting the preceding letters patent, recited as follows:

And whereas, since the making of the said letters patent, we have conceived that the same our grant hath been used to our prejudice: Know ye, therefore, that we, according to the tenor and effect of the said proviso before mentioned, and according to the power given unto us in and by the same, being fully purposed and resolved to determine and make void and frustrate the said letters patent, of our certain knowledge and mere motion do hereby, under our great seal of England, declare, signify, and publish our will and pleasure, that the said mentioned letters patent, and every grant, article, clause, and charge therein contained, shall from henceforth cease and be utterly void and frustrate, and that the same, nor any part thereof, shall any longer be put in execution: And whereas the said Abraham Baker hath already, at his own costs, charges, and expenses, for some years past, made good quantity of the said smalt within this realm; and hath also promised and undertaken from time to time, during the term hereafter mentioned, to make sufficient quantity of the said smalt to serve for the use of this our kingdom, and to serve the same with smalt as good and as cheap as the like brought from beyond the seas, within the space of seven years next before the date of the said former letters patent, was usually sold for; Know ye now, that, as well as in consideration thereof, as also in consideration of the yearly rent and sums of money, hereby in these presents reserved, and hereafter to be paid to us, our heirs and successors, for our customs and subsidies herein demised and otherwise; and also, to the end that the said Abraham Baker may have and receive convenient recompense and reward, in consideration of the great labour, charges, and expenses, in attaining the said art, mystery and skill of making and compounding the said stuff, called smalt, and for the better encouragement of him the said Abraham Baker, as of others, in the like endeavours; of our especial grace, certain knowledge, and mere motion, we have given, granted, and confirmed, and by these presents for us, our heirs and successors, do give, grant and confirm full, free, lawful and absolute power, license and authority, unto the said Abraham Baker, that he and his executors, administrators, deputies, factors, assigns and servants, and every or any of them, and

Determination
of above recited
letters patent.

Promise to sup-
ply the king-
dom as well as
before.

The patent a
recompense, re-
ward, and for
encouragement
to others.

none other, shall and may, from time to time, and at all times, during the term of one-and-thirty years next and immediately following and ensuing after the date hereof, in all and every county, &c. (c)

Letters Patent, 16 Feb. 16 Jac. . to Abraham Baker.

(EXCEPTED IN THE STATUTE OF MONOPOLIES.)

After reciting the grant of thirty-one years by the preceding, recited as follows:

Interest of Sir George Hay, Knight, in said grant.

Surrender of former grant, and renewal thereof.
Granting part.

Which said letters patent, and licenses, powers, privileges and authorities, thereby granted, the said Abraham Baker, together with Sir George Hay, Knight, who had some power and interest, the same have surrendered and given up into our hands, to be cancelled and made void, which we have and do hereby accept: Know ye, that we, as well in consideration of the faithful and acceptable service to us done and performed by our trusty and well-beloved servant, the said Sir George Hay, Knight, one of the gentlemen of our privy chamber, and in consideration of his great costs, charges and expenses, bestowed in assisting the said Abraham Baker in the discovery, finding out and perfecting of the said art and invention, of making, working, and compounding of the said smalt, by these presents for us, our heirs and successors, at the humble request and nomination of the said Sir George Hay, do give, grant, and confirm unto the said Abraham Baker, full, free, lawful and absolute power, license and authority, that he, the said Abraham Baker, his executors, administrators, deputies, factors, assigns and servants, and every or any of them, only, and none other, shall and may, from time to time, and at all times hereafter, during the term of thirty and one years next and immediately following after the date hereof, in all, &c. * * * * (d)

Covenant by Baker to make sufficient smalt,

And the said Abraham Baker, for him, his executors, and administrators, doth covenant, promise and grant, to and with us, our heirs and successors, by these presents, that he, the said Abraham Baker, his executors, administrators and assigns, shall

(c) The other clauses in the letters patent are very nearly the same as in the preceding. The particular manner in which the former grant hereby repealed had become prejudicial is not stated on the face of the letters patent, but it is important to observe in this case of an imported invention, that the consideration of the grant is the supplying the kingdom with smalt in sufficient quantities, as good and as cheap as during the seven years preceding the grant.

(d) The following is an abstract of the omitted clauses:—Power to all persons to import the raw materials—all forfeited smalt to belong to Baker—*Habendum* for twenty-one years, reserving 20*l.* a-year to the crown—all others prohibited from making smalt—importation of smalt “from any

parts beyond the seas or from or out of our realm of Scotland” into the realm of England, or dominions thereof, prohibited—grant of a seal with a half lion holding a sceptre, and the words *sceptra foveant artes*—no smalt to be sold without this device, and persons dealing in imported smalt to enter into bonds not to sell the same in England—all smalt not marked with said device to be forfeited to Baker—power to Baker to sue, and the letters patent or enrolment of them should be sufficient warrant to officers, &c.—Any mills, engines, or other instruments, for making the smalt in violation of the preceding, to be presented to the privy council, and, on good cause found, demolished, or their unlawful use repressed.

and will, yearly and every year, and from time to time, during the said term of years hereby granted, make and cause to be made within this our realm, sufficient quantities and store of smalt to serve for the use of this our kingdom of England, and the dominions thereof, and shall also make the same smalt as good, perfect, and merchantable, as the smalt heretofore brought from beyond the seas hath usually been, and shall also utter and sell the same smalt so by him or them made, at as easy and reasonable rates and prices as the like smalt heretofore brought unto this our realm from the parts beyond the seas hath been usually uttered and sold for in this our realm, within the space of seven years, before the fourth day of February, in the sixth year of our reign of England, &c.

* * * * *

Provided likewise, that when and as often as complaint and proof shall be made to the Lord Treasurer of England for the time being, by any person or persons whatsoever, that the smalt made by the same Abraham Baker, his executors or assigns, shall not be fit for use, or shall be uttered or sold at greater or higher rates than the like smalt hath been usually sold for, within the space of seven years last past, before the seven-and-twentieth day of July, in the third year of our reign of England, that then and so often, upon every such complaint, the said Abraham Baker, his executors and administrators, shall be ordered and shall stand to abide and perform such order and direction therein as the Lord Mayor of London for the time being, and any such four of the aldermen of the said city for the time being as by the said Lord Treasurer of England for the time being shall be in that behalf thereunto nominated and appointed, shall, upon deliberate hearing and examination of the matters contained in any such complaint, in their judgment and discretion set down in writing, under their hands and seals, to be observed, performed and kept, by the said Abraham Baker, his executors, administrators or assigns, in that behalf, although express mention of the true yearly value or certainty of the premises, or of any of them, or of any other gifts or grants by us, or any our progenitors or predecessors, to the said Abraham Baker before this time made in these presents be not made, or any statute, act, ordinance, provision, proclamation or restraint, to the contrary thereof, heretofore had, published, ordained or provided, or any other defect, uncertainty, imperfection, cause or matter whatsoever any wise notwithstanding. In witness, &c. (e)

On complaint made to the Lord Treasurer of the badness or dearness of the smalt, order shall be made respecting it.

(e) The following is an abstract of the omitted clauses;—Power of search and seizure, and the officers of customs to stop the introduction of any smalt—masters of vessels to swear that they are not bringing in smalt—proviso in case of failure of the raw materials that Baker may petition the crown for leave to supply the immediate

demand by importation—all mayors, &c. directed to aid in the execution of the grant, and no assignment to take place without the consent of Sir G. Hay.

(f) See ante 8, as to the validity of the preceding patents at common law.

DUDLEY'S PATENT.

(EXCEPTED IN THE STATUTE OF MONOPOLIES.)

*Letters Patent, 22nd February, 19 Jac. I. A. D. 1622, to
Edward Lord Dudley.*

Recital of the
discovery of
making iron
with sea or pit
coal, as good as
that made with
charcoal; a
work not for-
merly performed
in the kingdom.

Such invention
for the public
good.

That authors of
useful inven-
tions should be
rewarded.

Granting part.

Grant of exclu-
sive use of said
invention for
fourteen years.

James, &c., to, &c. Whereas our right trusty and well-beloved Edward Lord Dudley hath, at his great travail and industry, and after many chargeable experiments, found out the mystery, art, way, and means, of melting of iron ewre [ore], and of making the same into cast works or bars, with sea coals or pit coals, in furnaces with bellows, of as good condition as hath been heretofore made of charcoal; a work and invention not formerly performed by any within this our kingdom of England; we graciously favouring and willing to cherish such ingenious and profitable inventions, and finding that the working and making of the said iron, by the means aforesaid, within this kingdom, will not only in itself tend to the public good thereof, but also thereby the great expense and waste of timber and wood converted into charcoal and consumed upon iron works will be much abated, and the remnant of wood and timber within this land will be much preserved and increased; of the want whereof not only ourself, in respect of provision for our shipping and otherwise, but also our subjects, for many necessary uses, are very sensible; and holding it agreeable to justice, that the authors of so laudable and useful inventions should, in some good measure, reap the fruits of their studies, labours, and charges; Know ye, that we, for the causes aforesaid, and other good considerations us hereunto moving, of our especial grace, certain knowledge, and mere motion, have given and granted, and by these presents, for us, our heirs and successors, do give and grant unto the said Edward Lord Dudley, his executors, administrators, and assigns, full and free liberty, license, power, and authority, that they and every of them, by him or themselves, or his or their deputies, factors, servants, or workmen, at his and their charges, shall and may, at all and every time and times, and from time to time, during the term of fourteen years next ensuing the date hereof, use, exercise, practise, and put in use, within this our realm of England, and the dominion of Wales, at his and their liberty and pleasure, the said mystery, art, way, and means, of melting of iron ore, and of making the same into cast works or bars, with sea coals or pit coals in furnaces, with bellows; and also to make, erect, and set up, in any place or places, within the said realm and dominion, or either of them, any furnace or furnaces, engine or engines whatsoever, concerning the said mystery, way, art, and means, of

melting of iron ore with sea coals or pit coals, and of making the same into cast works or bars, as aforesaid, and the same iron so cast and made to utter and sell in gross or by retail, or otherwise to do away, at his and their free will and pleasure, and to his and their best commodity and profit. And further, to the end this our pleasure may be the better effected, and that the said Lord Dudley, his executors, administrators, and assigns, may the more fully enjoy the benefit of this our grant, we will, and for us our heirs and successors do straitly charge, inhibit and command, and do also of our more especial grace, certain knowledge, and mere motion, for us our heirs and successors, grant to the said Edward Lord Dudley, his executors, administrators and assigns, that no person or persons whatsoever, born within any our realms and dominions, nor any other person or persons, either denizens or strangers born in any foreign realm or country whatsoever, of what estate, degree, or condition he or they be, or shall be, other than the said Edward Lord Dudley, his executors, administrators, and assigns, or such as shall be by him or them set on work or authorized, shall or may at any time or times during the said term of fourteen years hereby granted or mentioned, or intended to be granted, practise, exercise, or put in use, or in any way counterfeit, the said mystery, art, way, or means, of melting of iron ore, and of making the same into cast works or bars with sea coals in furnaces with bellows, or any furnace or furnaces, engine or engines concerning the same, within this our realm of England, or the dominion of Wales, or any place or places in them or either of them, upon pain of forfeiture to us, our heirs and successors, of the ore and iron so to be melted or made contrary to the true intent and meaning of these presents, and to have the said furnaces, engines, and devices, utterly pulled down and defaced; and also upon pain of our high indignation and displeasure, and such further penalties, punishments, and imprisonments, as by any laws or statutes of this our realm can or may be inflicted or imposed upon the offenders, for their disobedience in contemning our royal command.

And to utter and sell the same.

Prohibitory part

All others prohibited from practising or using the said invention.

Furnaces of infringers to be demolished.

* * * * *

Provided always, and our will and pleasure is, that this our present grant and privilege, or anything therein contained, shall not in any wise extend or be construed to extend to the prejudice of any other person or persons concerning any other grant

This grant not to prejudice any in force. (h)

(g) With a constable to enter places where infringement is suspected.—In case of resistance, Court of Exchequer to punish offenders.—All mayors, &c. to assist patentees in the enjoyment of their right.

(h) At common law former grants were avoided by subsequent letters patent for the same thing; there had been several previous patents for the manufacture of iron with pit coal, some of which

had been surrendered, *post* 16, n.; these are not recited in the present grant, as in the smalt and glass patents, in conformity it would appear with the statute, 6 H. 8. c. 15. This proviso would probably obviate all objections to Dudley's grant under that statute, as well as save any prior patents still in force. A proviso to the same effect is contained in letters patent as at present granted. *Law and Practice*, Pr. F. XIII. n. m.

Proviso for
avoiding the
grant if incon-
venient.

or privilege heretofore made by us, or any of our progenitors or predecessors, kings or queens of England, now in force, for melting of iron ore or making of iron or any iron works; provided also, that if it shall appear unto us, our heirs or successors, or the privy council of us, our heirs or successors, at any time hereafter, that this our present grant and privilege is or shall be inconvenient to the commonwealth, that then upon signification of the pleasure of us, our heirs or successors, under our or their sign manual, signet or privy seal, or upon signification under the hands of any six or more of the privy council of us, our heirs or successors for the time being, these presents, and every grant, clause, article, and thing, therein contained, shall cease, determine, and be utterly void and of none effect, any thing before in these presents contained to the contrary notwithstanding, although express mention, &c. In witness, &c.

The history of the manufacture of iron with pit coal may be briefly traced.

In 1612, Simon Sturtevant had a patent for thirty years, for the exclusive manufacture of iron with pit coal, in all its branches; and he was bound in return to publish an account of his discoveries, which afterwards appeared in his "*Metallica*;" but failing in the execution of his discoveries on a large scale, in the next year he surrendered his letters patent.

Soon afterwards John Rovenon had a patent on the terms of publishing an account, which he did, A. D. 1613, in his *Metallica*; he also failing, surrendered his patent. Several other persons had patents, but failing, were compelled to surrender them.

In 1622, Lord Dudley had the above patent, of which the following account is given by his son Dud Dudley, in the *Metalium Martis*. "Immediately after my second trial I wrote unto my father what I had done, and withal desired him to obtain a patent for it from King James, of blessed memory; the answer to which letter I shall insert only to show the forwardness of King James to animate the inventor, as he did both Simon Sturtevant, John Rovenon, Dr. Jordanie, and others." *Ib.* p. 6.

Dudley's success was very limited in the first instance, about three tons per week; the combination against him of parties interested in the charcoal iron trade, and others wishing to share in his new discovery, was very great.

In 1651, an act of parliament was passed, granting to Jeremiah Buck the use of his invention of melting iron and other metals with coal, without charking. But his plan failed. *Post* 34.

From the time of the invention by Dudley, for a period of one hundred and twenty years, little progress was made in the manufacture of iron. The epochs in the history of the manufacture of iron are distinguished by Mr. David Mushet, in his work, entitled "*Papers on Iron and Steel*," into the five following.

1. The invention of the blast furnace.
2. The use of pit coal and pit-coal coke in the smelting and manufacture of iron.
3. The invention of puddling and rolling bar iron by Mr. Cort.

4. The introduction of Mr. Watt's double blast engine.

5. The application of heated air to blast furnaces.

The inventions constituting this last epoch are the subject of the two following patents.

1. To James B. Neilson, 11 September, 1828, for "the improved application of air to produce heat in fires, forges, and furnaces, where bellows or other blowing apparatus are required." The invention consists in supplying the air heated in a vessel intermediate to the furnace and the blowing apparatus. *Neilson v. Harford and others*.

2. To George Crane, 28th September, 1836, for "an improvement in the manufacture of iron." The invention consists in the combined use of the hot blast and anthracite. *Crane v. Price and others*.

Conditions of validity.

1. *The Grantee.* Lord Dudley, according to the preceding account, was the first person who succeeded in making iron from pit coal; he brought, therefore, a new trade into the realm. *Ante* 5, 8.

2. *The term.* Fourteen years would hardly be considered other than a reasonable time. *Ib.*

3. *The subject-matter.* The result was iron made from pit coal, either in its natural state or coked, and the other substances in use before; so far as appears in the letters patent, the invention was simply the substitution of pit coal for wood or charcoal. It may be conjectured, from a variety of circumstances, that the success was due to an improved furnace, bellows and blast. The substitution, however, of coal as the fuel was the general feature of the invention, the means being subsidiary, admitting of continued improvement, and not necessary to be described; the common law only requiring the inventor to be in possession of such means, or the grant would be void for false suggestion.

Other patents were granted subsequently for the same object, the means being different. As to Buck, *post* 34.

4. *Novelty and utility.* The preceding account shows that little doubt can be entertained as to the validity of the patents on both the above grounds.

MANSELL'S GLASS PATENT.

(EXCEPTED IN THE STATUTE OF MONOPOLIES.)

Letters Patent 22 May, 21 Jac. I. to Sir Robert Mansell.

James, &c., to all, &c., Whereas in and by our letters patent, sealed with our great seal of England, bearing date at Westminster, the nineteenth day of January, in the twelfth year of our reign of England, France, and Ireland, and of Scotland the eight-and-fortieth, it is (amongst other things) mentioned, that we, taking into our consideration the daily waste and decay of timber and wood within our realm of England and Wales, and the dominions of the same, insomuch and where thentofore this our kingdom was furnished and adorned with goodly quantities of the same, not only for the navies and inhabitants thereof for their continual use and comfort, and for store and provision against all occasions and accidents, but also to serve and supply foreign parts with the same in great plenty, and that then of late contrariwise the continual consumption of the same, and that many times in superfluous and unnecessary things, did both increase intolerably the rates and prices of timber, wood, and fuel, in an excessive and unreasonable manner, and also threaten an utter want and scarcity thereof, so much that then our subjects of this kingdom of late years had been forced to use timber, firewood, and fuel, brought from foreign parts, whereby great damage in time to come would grow to our realm and subjects of this kingdom, for want of necessary provision, as well for making and preparing of ships (being the principal defence of this our kingdom), as also for convenient buildings and firewood in all places, if convenient remedy according to the good policy of state were not in time provided, and that we were therefore moved, out of our especial care of the future good of this our kingdom, not only to make provision for the preservation and increase of timber and wood by good laws and ordinances, but also to embrace all profitable and beneficial devices, projects, and inventions, that might tend to the furthering thereof; so that perceiving glass works and working of glasses with timber and wood to be one of the greatest and thiest means to consume and destroy timber and wood, whereas, theretofore, we had given and granted license unto Sir Jerome Bowes, Knight, within our realms of England and Ireland, to use the art and feat of making drinking glasses, and other glasses, for a certain time and term in the said recited

Recitals.
Whereas in letters patent, 12 Jac. I. it is mentioned that in consideration of the consumption of timber, and

of the scarcity of wood for necessary purposes, if convenient remedy were not provided;

In order that wood should be preserved, and all devices and inventions tending thereto encouraged; and because glass works are a great thief of wood, license was granted to Bowes for making glasses, and all others prohibited;

letters patent expressed, and thereby had prohibited all others to make the said glasses, upon express proviso and condition that we, our heirs and successors, might frustrate, determine, and make void, the said recited letters patent of license, in

And afterwards
like license was
granted to
others after the
expiration of the
preceding 21
years;

such case as in the same letters patent is expressed; and that afterwards, by our letters patent under the great seal of England, we did also give and grant the like license to make drinking glasses, and other glasses, unto Sir Percival Hart, Knight, and Edward Fawcett, Esquire, from the expiration or determination of the said Sir Jerome Bowes his patent, for and during the term and space of one-and-twenty years thence next ensuing; and that also by the like letters patent, under our

And license was
also granted to
Salter, for mak-
ing all glasses
not prohibited
by preceding;

great seal of England, we did grant license unto Edward Salter, Esquire, to use the art of making all manner of drinking glasses, and other glasses, and glass works, not prohibited by the former letters patent; as by the said several letters patent appeared: And it is also in and by our said letters patent, bearing date the said nineteenth day of January, in the

And it was men-
tioned in the said
letters patent
that the licences
had become pre-
judicial, there
being presented
a project of a
new invention
for making glass
with pit coal
and other fuel
besides timber;

said twelfth year of our reign of England, mentioned, that we, then lately having certain notice or perfect knowledge that the said several recited letters patent of licenses were grown very hurtful and prejudicial unto this our realm; there being then lately presented unto us by Thomas Percivall, Esquire, a project of new invention, for the making of all manner of glasses with pit coal, and other fuel, not being timber or wood, which we had then been slow to believe, until at the great charge of the said Thomas Percivall the same was brought to perfection, as plainly appeared by manifest and demonstrative experience, in and by the several furnaces then lately erected and built by the said first inventor Thomas Percivall and his partners:

And also that
the privileges
having become
hurtful, the said
letters patent
were void in law
and to be over-
thrown by due
course of law,
and that the
crown would
not undertake
their defence;

And it is further mentioned in and by the said letters patent, bearing date the said nineteenth day of January, forasmuch as the use and exercise of the liberty and authority by the said three former recited letters patent mentioned to be granted were grown hurtful and prejudicial to the common weal, and the prejudice of them was likely daily to increase, unless some provision thereof were made, whereupon the said letters patent were become void in law, and to be overthrown by ordinary course of law, in such cases used, we did by the same letters patent, bearing date the nineteenth day of January, express and declare that we did not purpose to take upon us the defence or protection of any the said letters patent, or of any thing in any of them mentioned to be granted, and that course should from time to time be had and used against all persons that should take upon them to use or exercise any power, privilege, or liberty, by pretext or colour of any of the said letters patent, as our laws in such case should permit and require; with this,

And that for the that, for the preservation of wood and timber, we did purpose

to take such course for the general restraint of our people from the making of glass with wood or timber as should be agreeable to the good of our people, and the state of the commonwealth: And it is also mentioned in and by our said letters patent, bearing date the said nineteenth day of January, in the said twelfth year of our reign of England, that we (for the considerations therein expressed) did give and grant unto our right trusty and right well-beloved cousin Philip, Earl of Montgomery, and to our right trusty and right well-beloved cousin, Thomas Viscount Andover, by the name of our trusty and well-beloved subject and servant Sir Thomas Howard, Knight, and to our trusty and well-beloved subjects and servants Sir Robert Mansell, Knight, Sir Edward Zouch, Knight, Sir Thomas Tracy, Knight, Thomas Hayes, Esquire, Bevis Theloall, Thomas Percivall, and Robert Kellaway, their deputies and assigns, full and free license, power, privilege, and authority, that they, and every of them, and every of their executors, administrators, assigns, deputies, servants, workmen, factors, and agents, should and might, from time to time, and at all times thereafter, during the term and space of one-and-twenty years next and immediately ensuing the date of the said letters patent, at their and every of their wills and pleasures, use, exercise, practise, set up, and put in use, the art, mystery and feat, of melting and making of all manner of drinking glasses, broad glasses, window glasses, looking glasses, and all other kind of glass, glasses, bugles, bottles, vials, or vessels whatsoever made of glass, of any fashion, stuff, matter, or metal whatsoever, thentofore used, and thereafter to be devised or used, in this our realm of England and Wales, and the dominions thereof, or elsewhere, with sea coal, pit coal, or any other fuel whatsoever, not being timber or wood, nor made of timber or wood, in and throughout this our realm of England and Wales and the dominions thereof, and within every or any part of the same elsewhere within any of our kingdoms and dominions, yielding and paying therefore yearly, during the said term and time of one-and-twenty years, unto us, our heirs and successors, the annual or yearly rent, farm, or sum, of one thousand pounds of lawful money of England: And it is also mentioned in our letters patent, bearing date the said nineteenth day of January, that we did thereby grant, that no person or persons whatsoever, other than the said Philip Earl of Montgomery, Sir Thomas Howard, Sir Robert Mansell, Sir Edward Zouch, Sir Thomas Tracy, Thomas Hayes, Bevis Theloall, Thomas Percivall, and Robert Kellaway, their executors, administrators, deputies, assigns, agents, factors and servants, should at any time thereafter, during the said term of one-and-twenty years, import or bring into our said realm of England and Wales, or the dominions thereof, or to any part or parcel thereof, out of or from any realm or foreign

preservation of the wood, some course would be taken to restrain its use in making glass, and that it was granted to divers persons to use the art and mystery of making glass of any metal with sea coal or any other fuel, not being wood, for twenty-one years.

Yielding 1000l. per annum.

And also that no others than the said persons should, during the said term, import any glass into the realm.

part, any manner or kind of glass or glasses whatsoever, before in the said letters patent mentioned, of what metal, stuff, or fashion soever they, nor directly or indirectly buy or contract for any kind or sort of glass made beyond the sea, or in any place out of this realm of England, Wales, or the dominions thereof, nor sell or utter any such; as by the said letters patent, amongst divers grants, powers, privileges, and other things

And whereas the said Mansell, by contract with the other patentees, having taken on himself the said rent and payments to others interested in the said privileges, by reason thereof could not sell the glass at moderate prices; and all importation of glass made in any other dominions of this realm or of any foreign prince being prohibited, the said letters patent were become hurtful and complained of in parliament as a grievance, and in respect of the prejudice thence accruing, void in law.

therein contained, more at large appeareth: Now forasmuch as the said Sir Robert Mansell, by agreement and contract with the rest of the said patentees taking upon himself the exercise and execution of the said letters patent of privilege, was charged and burthened with the payment, not only of the said yearly rent of one thousand pounds, but with sundry other great yearly payments unto divers others that were interested in the said patent privilege, all which payments did amount unto in the whole the sum of two thousand and eight hundred pounds by the year at the least, and in respect thereof could not utter and sell the glasses made by virtue of the said patent of privilege for such moderate prices as was fitting for our subjects; and in respect thereof, and because all importation of glass, made as well in any other of our own dominions as in the dominions of any foreign princes or states, was by the said letters patent of privilege prohibited and restrained, the said letters patent of privilege, bearing date the said nineteenth day of January, did grow hurtful and prejudicial to the common weal, and accordingly the same were complained of in the last convention of Parliament as a grievance, so as the said letters patent, bearing date the said nineteenth day of January, in respect of the prejudice thereby accruing to the commonwealth, are become void in law, and to be overthrown by the ordinary course of law in such cases used: Know ye, that we, taking the premises into our gracious and princely consideration, do hereby declare, that, insomuch as the said letters patent, bearing date the said nineteenth day of January, and other the letters patent before-mentioned and recited, did become prejudicial to the public, and the execution of them grievous to our loving subjects, that we will not hereafter take upon us the defence or protection of any the said letters patent, or of any thing in any of them mentioned to be granted, and that such course shall and may from time to time be had and used against all persons that shall hereafter take upon them to use or exercise any power, privilege, or liberty, by pretext or colour of any of the said letters patent, as our laws in such case shall permit or require. And yet nevertheless, upon deliberate advice with the Lords and others of our Privy Council, and at the humble petition of the said Sir Robert Mansell, setting forth that the making of glass of all kinds within this kingdom with sea coal and pit coal was brought to a full and

That the crown will not take up the defence of the said letters patent, but leave any persons claiming privileges under them to be dealt with by law.

exact perfection, for the use and good of our kingdom, with the expense of his whole fortunes, upon due consideration of the many and faithful services of the said Sir Robert Mansell, and finding by the petitions and certificates of the glass sellers, looking-glass makers, glaziers, and spectacle makers, in and near our City of London, made and certified, some of them to the Commons in the last convention of Parliament, and the rest unto the Lords Commissioners by us appointed, to take consideration of the business of glass works, that the glass made by the said Sir Robert Mansell was perfectly good, clear, and merchantable, or rather better glass than formerly was made with wood, and that there was sufficient store made not only to serve England, but also to serve other countries if need were, we are pleased and resolved, and do hold it most requisite and necessary for the good and benefit of this realm, that the making of glass with sea coal and pit coal be continued, and that all making of glass with wood for ever hereafter shall cease, and the privilege for sole making thereof with sea coal and pit coal shall be renewed to the said Sir Robert Mansell, not only as a token of our grace and favour towards him by his many and well-deserving services, but as a recompense for the great charge and expense, which, for upholding and bringing of that work to full perfection, he hath disbursed, to the weakening of his estate, but yet without any restraint of the importation of foreign glass, and without burthen, of rent or otherwise, which might occasion the enhancing of prices to our subjects, whereby all just grievance shall be taken away, by our own loss of the annual rent, which upon the said former letters patent was reserved unto us: Know ye further, that we, as well for and in consideration of the good and faithful service done unto us by the said Sir Robert Mansell, our Vice Admiral of England, as also of the great pains, charges, hazards, disbursements, and expense of great sums of money and other detriments, which the said Sir Robert Mansell hath undergone and been at, in and about the said work of making glass with sea coal, and for other good causes and considerations us hereunto moving, of our especial grace, certain knowledge, and mere motion, have given and granted, and by these presents for us, our heirs and successors, do give and grant, unto the said Sir Robert Mansell, his executors, administrators and assigns, full and free liberty, license, power, and authority, that he, the said Sir Robert Mansell, his executors, administrators, assigns, deputies, servants, workmen, factors, and agents, shall and may, from time to time, and at all times hereafter, during the term of years hereafter in these presents mentioned, at his and their and every of their wills and pleasures, use, exercise, practise, set up, and put in use, the art, feat, and mystery, of melting and making of all manner of drinking glasses, broad glasses, window glasses, looking glasses, and

And in consideration of the making of glass by pit coal having been brought to perfection at the expense of Mansell,

And the glass being as merchantable, or rather better than that made with wood,

The grant to be renewed to him as a recompense for his great costs and damages, but without any restraint on the importation of foreign glass, and without paying any rent.

Granting part.

To use, exercise, practise, set up, and put in use, the art, feat, and mystery,

tery, of melting
and making
glass of any
stuff or metal
with sea coal, or
any fuel not
being wood,
within England
and Wales ;

And to erect
and set up fur-
naces, and to
utter and sell
the glass so
made :

To have said
privileges for
fifteen years,
and free from
all rent.

*Prohibitory
part.*

all other kind of glass, glasses, bugles, bottles, vials, or vessels whatsoever made of glass, of any fashion, stuff, matter, or metal whatsoever, heretofore used, or hereafter to be devised or used, in this our realm of England and Wales, and the dominions thereof, or elsewhere, with sea coal, pit coal, or any other fuel whatsoever, not being timber or wood, nor being made of timber or wood, and throughout this our realm of England and Wales, and the dominions thereof, and within every or any part of them, or any of them, and to make, erect, and set up, as many furnaces, engines, structures, and devices, for that intent and purpose, and in as many places of our said realm and dominions, as he or they shall think fit, agreeing with the owners of the soil for the same ; and the glass and glasses, bugles, bottles, vials, and vessels, so made, to utter or sell, in gross or by retail, or otherwise to do away, at his and their, or any of their free will and pleasure, to his and their profit and commodity, during all the said term hereinafter mentioned ; and that he, the said Sir Robert Mansell, his executors, administrators, and assigns, and his or their deputies, servants, workmen, and agents, having license from the said Sir Robert Mansell, his executors, administrators, or assigns, shall and may, from time to time during the said term, have and enjoy the sole trade of making and melting of all manner of drinking glasses, broad glasses, window glasses, looking glasses, and all other kind of glass, glasses, bugles, bottles, vials, or vessels, in form aforesaid ; and that no other, during the said term, shall or may use or practise the art or feat of making or melting of any glass with timber or wood, nor with pit coal or sea coal, or other fuel, not being timber or wood, nor made of timber or wood : To have, hold, use, exercise, practise, and put in use the said license, liberty, privilege, authority, immunity, of and for melting and making of all and all manner of drinking glasses, broad glasses, window glasses, looking glasses, and all other kind of glass, glasses, bugles, bottles, vials, and vessels whatsoever, with sea coal, pit coal, and other fuel, not being timber or wood, or made of timber or wood, in all parts and places within our said kingdom and dominions, unto the said Sir Robert Mansell, his executors, administrators, deputies, and assigns, and their and every of their servants, workmen, factors, and agents, for and during the whole term, and to the full end and determination of fifteen years next ensuing the date of these our letters patent, fully to be complete and ended ; freely and absolutely, without any rent, account, sum or sums of money, reckoning, allowance, or any other thing whatsoever, to us, our heirs or successors, to be therefore paid, made, given, answered, or done, in any manner of wise. And to the end the said Sir Robert Mansell, his executors and assigns, may receive, perceive, and have such benefit, profit, and commodity, as we intend unto him and them by this our grant, and as

the perfecting of so great a work with such care and hazard deserveth, and for the better encouraging of him and them to reduce the said business to a further perfection, we do hereby expressly declare and signify our royal pleasure to be, and we do strictly charge, inhibit, and command all and every other our loving subjects, and all and every other person and persons, of what estate, degree, or condition, they, or any of them, be, that they presume not nor attempt by any art, act, or device whatsoever, directly or indirectly, to make any manner or kind of drinking glasses, broad glasses, window glasses, looking glasses, or any other kind of glass, glasses, bugles, bottles, vials, or vessels whatsoever made of glass, as aforesaid, with sea coal, pit coal, or any other fuel, not being timber or wood, nor made of timber or wood, at any time during the said term, without the especial consent and license in writing of the said Sir Robert Mansell, his executors, administrators, or assigns; but that the full and whole benefit and profit of making of all and all kinds of glass and glasses whatsoever, as aforesaid, with pit coal, sea coal, and other fuel, not being timber or wood, nor made of timber or wood, within every part of our said kingdom and dominions, shall be and remain, during all the said time and term, to the sole and only behoof, disposition, and use, of the said Sir Robert Mansell, his executors, administrators, deputies, and assigns, and to none other person or persons whatsoever; and we do further by these presents straitly charge, command, and prohibit, and do signify our royal will and pleasure to be, that no person or persons whatsoever, of what estate, degree or condition soever they or any of them be, other than the said Sir Robert Mansell, his executors, administrators, deputies, and assigns, and such as shall be licensed, authorised, and set on work, by him or them, or any of them, do, shall, or may, at any time hereafter, during the term of years before mentioned, practise, erect, or set up, by any ways or means, the said art and feat of making of any kind of glass or glasses, bugles, bottles, vials, or vessels whatsoever, or any furnace or furnaces for making thereof, within our said kingdom and dominions, upon pain of our heavy displeasure, and due punishment for the contempt of our royal commandment in that behalf. And we do by these presents give and grant unto the said Sir Robert Mansell, his executors, administrators and assigns, deputies, factors and agents, and every of them, full power, liberty and authority, from time to time, and at all times, during the said term, by all lawful ways and means, to search, try, and find out, all offences and acts committed and done contrary to the true intent and meaning of these our letters patent. And likewise for us, our heirs and successors, we do hereby of our especial grace, certain knowledge, and mere motion, give and grant unto the said Sir Robert Mansell, his executors, administrators, deputies, assigns, factors, agents and

No persons to attempt to make glass with sea coal, or fuel other than wood, without the consent of Mansell;

Or practise, erect, or set up, the said art.

Power to search out offences.

Authority to sell the glass, and to export what is not required at home, paying usual customs.

servants, free power, liberty, license, and authority, to utter and sell, in gross or by retail, such kind of glass or glasses before mentioned, as shall be made by virtue of these our letters patent; and if he or they shall have more than will serve us, and the subjects of us, our heirs and successors, that then he and they, and such others as shall buy the glass, made as aforesaid, of him or them, or any of them, to transport and carry over unto foreign parts, so many and so much thereof as they shall think fit, paying unto us, our heirs and successors, the customs due to be paid for the same, and leaving sufficient quantity for us, our heirs and successors, and our or their subjects at reasonable

Exchequer writs to be issued to mayors, &c., to search after persons acting in violation of these presents.

prices. And we do further, for us, our heirs and successors, will and grant by these presents, that our Treasurer, Chancellor, and Barons of the Exchequer, for the time being, or any of them, by force of this our grant, or the enrolment thereof in our Court of Exchequer, from time to time, and at all times hereafter, during the said term, upon the request of the said Sir Robert Mansell, his executors, administrators, assigns or agents, shall grant, make and direct, under the seal of our said Court of Exchequer, such and so many writ and writs, close or patent, unto such Mayors, Bailiffs, Sheriffs, Customers, Comptrollers, Searchers, and other officers of us, our heirs and successors, in such shires, counties, cities, towns, boroughs, and other places whatsoever, within our said realm of England and Wales, and the dominions thereof, as the said Sir Robert Mansell, his executors or assigns, shall at any time, and from time to time, require, thereby charging and commanding the said officers, and every of them, diligently and carefully to inquire, try, search, and find out, all and every person and persons, as, contrary to the true intent and meaning of these our letters patent, shall at any time during the said term, make, utter, or sell, any such kind of glass or glasses whatsoever, hereinbefore mentioned, or build, make, erect, use, or set up, or cause to be builded, made, erected, or set up, any such furnace or furnaces, structures, engines, or devices, for the melting or making of any the sorts or kinds of glass or glasses before mentioned, until they understand the pleasure of our said Treasurer, Chancellor, and Barons of our said Court of Exchequer, in that behalf, and further order by them taken therein. And we do hereby, for us, our heirs and successors, will and command the Treasurer, Chancellor, and Barons of the Exchequer, for the time being, and every of them, that they, or any of them, upon complaint made by the said Sir Robert Mansell, his executors, administrators, or assigns, in that behalf, do all that in justice they may, as well for the demolishing of the said furnaces, structures, engines, and devices, set up or devised contrary to the true intent of these presents, as for the apprehension and lawful punishment of such as shall offend against any part of these our letters patent. And, for the

The officers of the Exchequer to demolish furnaces and punish offenders.

better execution of this our grant, we do hereby, for us, our heirs and successors, give and grant full power, license, and authority, unto the said Sir Robert Mansell, his executors, deputies, and assigns, by himself or themselves, or his or their agents, factors, or servants, with the assistance of some officer appointed for preservation of the peace, to enter into any glass house or glass houses, and other place or places whatsoever, within any part of any of our kingdoms and dominions, as well within liberties as without, where any such furnaces, structures, engines, or devices, shall be made or set up, contrary to the true intent of these presents; or where any glass is made contrary to the privilege hereby granted shall probably and reasonably be suspected to be, and there, by all lawful ways and convenient means, to try and search for all and all manner and kind of any the glass or glasses before in these our letters patent mentioned, and glass works erected or made in any part of our said kingdom or dominions, to be bought or sold contrary to the true intent and meaning of these our letters patent, or to any law, proclamation, ordinance, statute, in that behalf made or ordained, or to be made or ordained; and if upon search they shall find any such glass or glasses made, or any glass work or furnace built or erected, contrary to the true intent and meaning of these presents, that then, with all convenient speed, he or they do signify the same to us, our heirs or successors, or to the Treasurer, Chancellor, and Barons of our Exchequer, or any of them, for further order to be taken therein, as shall appertain; and further, that he and they, and every of them, do carefully and diligently labour and endeavour that the true intent and meaning of these our letters patent may be truly observed; and if, in execution thereof, he or they, or any of them, shall find any resistance, then to certify the same unto our said Court of Exchequer, to the end the offenders therein may receive condign and deserved punishment for their several offences. And we do further hereby straitly charge and command all Mayors, Sheriffs, Justices of Peace, Bailiffs, Constables, officers, and ministers, and all other the subjects of us, our heirs and successors, to the aiding and assisting unto the said Sir Robert Mansell, his executors, administrators, deputies, assigns, factors, and workmen, in all reasonable things concerning the accomplishment of these our letters patent; and they or any of them do not, at any time or times, hinder, molest, interrupt or disturb the execution thereof, as they tender our heavy displeasure, and will avoid our indignation. And we do likewise charge the Attorney General of us, our heirs and successors, for the time being, to be aiding and assisting to the said Sir Robert Mansell, his executors, administrators, and assigns, in the maintaining and upholding of this our grant and privilege, and in complaining against such as shall withstand or impugn the same, whereby

Authority to Mansell with a peace officer to enter into glass houses.

All mayors, &c. are commanded to further the accomplishment of the premises.

The Attorney General to assist in the same, and the enrolment of the letters patent to be their warrant.

Nothing herein contained to hinder the importation from Scotland, or any foreign parts, of any glass cast therein.

The letters patent to be construed most favourably for Mansell, notwithstanding the not describing the form of the furnaces or engines to be used, or not naming the kind of glass to be made.

they may be censured and punished according to justice, and these our letters patent, or the enrolment of them, shall be their sufficient warrant and discharge in that behalf. Provided always, and our will and pleasure is, that this our present grant, or any thing therein contained, shall not extend or be construed to extend, to debar, hinder, or let, any person or persons whatsoever to import or bring, or cause to be imported or brought, into this our realm of England and the dominion of Wales, and there to utter, sell and dispose of any glass or glasses, of what kind or sort soever, made within our realm of Scotland, or in any foreign parts beyond the seas; but that it shall be lawful for all person and persons to import into, and utter and sell within, the said realm of England and dominion of Wales, or any of them, or any part of them, any glass or glasses whatsoever made within the said realm of Scotland, or any foreign parts, as aforesaid, any thing in these presents contained to the contrary in any wise notwithstanding, paying, nevertheless, unto us, our heirs and successors, such customs, subsidies, impositions, and other duties, as shall be due and payable for the said glass and glasses so to be imported, at the time of the importation of the same. And lastly, we do by these presents, for us, our heirs and successors, of our further especial grace and favour, grant unto the said Sir Robert Mansell, his executors, administrators and assigns, that these our letters patent, or the enrolment of them, shall be taken, construed and adjudged, in all and every our Courts of Justice, and elsewhere, to be most available for the said Sir Robert Mansell, his executors, administrators and assigns, against us, our heirs and successors, notwithstanding the not describing certainty of the form of the furnaces, structures, engines and devices, to be used for the melting and making of all manner of drinking glasses, broad glasses, window glasses, looking glasses, or any other kind of glass, glasses, bugles, bottles, vials or vessels whatsoever; and notwithstanding the not particular naming, or misnaming, of the kind or manner of glasses to be made by virtue of this our grant, or the sizes or scantling of the same; and notwithstanding any other defects and uncertainties in the same; any statute, law, provision, proclamation, or restraint to the contrary, and although express mention, &c. In witness, &c.

By writ of Privy Seal.

In the Journals of the House of Commons (p. 469) 20th April, A.D. 1614, 12 Jac. is the following: "Sir Edwin Sands—Reporteth the monopoly for glass, &c. A pregnant monopoly, showing a present likelihood of a new for making iron—that the new patent a strong monopoly, a surreptitious patent.

"The patent read by the clerk, and the names of the petitioners.

"Mr. Fuller.—Ruled in the King's Bench against a monopoly of cards, which unnecessary; where glass necessary—this as dangerous as the impositions. Now to glass, after to iron, after to all other trades. This like taking away the mill-stone from the poor.

"Ordered upon the question without one negative, that the patentees shall bring in their patent to the committees for petitions upon Monday after

Easter week; and they to have warning given them by the serjeant, then to attend and bring in their patent; and the committee for petitions to sit then for that matter specially, and after for all other of like nature, as the time will serve.

"May 4 (p. 472). Sir Edwin Sands reporteth the business of the patent of glass.

"The question only whether this a patent of monopoly, or a patent of privilege.

"That resolved by the committee, that the King's calling in the patent of J. Bowes and Saker just.

"That offered by the merchants that if all these patents might be called in which now are for making glasses, that should be sold here (by importation for 3d. ob.) which now costeth 16d.

"Mr. Francis Moore—Leather, stockings, brauses, glasses.

"That all their pretences public good, their ends private gain. Not to be new inventors of the means, but of the thing. The time for privilege not infinite; that to him and his heirs; so no apprentices or servants to take fruit of it; but first rogues and then whipped.

"Ordered, upon the question, that this a patent of monopoly.

"2. That this patent be brought in upon Friday next, *videlicet* curia.

"Friday, May 6 (p. 475). The patent of glass brought in by Mr. Kellaway, and delivered; but with protestation, that they have done it in obedience to the order of the house, and to be left here as belonging in right to the said patentees."

No further proceedings connected with this patent are reported for seven years, when the following occurs:—

"16th May, A. D. 1621, 19 Jac. 1 (p. 622). Sir Edward Coke reporteth the patent for glasses.

1. The consideration faileth; for no new invention, as proved by certificates from divers countries, and by three witnesses *videlicet* voce in the affirmative; so as *expressio falsi* and *suppressio veri*. 2dly. That the new invention only of making new furnaces; not power thereby for the sole making of glass; therefore this invention not to exclude making of glass by wood, but only by coal. 3dly. That restraint of importation hindereth trade, shipping, merchants, &c. 4thly. The time of twenty-one years too long.

"For the execution; doubtful whether the glass now as good as before. That Inigo Jones, the surveyor, said the glass not now so good as in ancient times. The price also doubtful, whether now dearer than before the patent.

"This also condemned as a grievance last convention in parliament; yet Sir Robert Mansell presently after procured this new patent. That 1,000*l.* *per annum* reserved to the King, yet none paid.

"Upon question, this patent a grievance, both in the creation and execution."

The preceding extracts, and the recitals and

clauses of the letters patent, illustrate each other. Several of the objections recorded in the journals to the letters patent of the 19th of January, 12 Jac., are removed in the present grant; the period is shortened, the importation of foreign glass is not prohibited, and no rent is reserved to the Crown. This patent was before the House of Commons during their deliberation on the bill of monopolies, and the journals record as follows (p. 696):

"1 May, 22 Jac. 1, A. D. 1624. Sir Edward Coke reporteth about the monopoly bills—some provisoes—that they have affirmed none of them to be good, nor condemned any of them to be ill. *Subpœna* office; patent of glasses; writings of the King's grants to the great seal. Though the present patentees be excepted, yet in future none can have them. Resolved, if the Lords shall add a proviso, to exempt them out of the act, and leave them as they be, the committee thinketh it fit to consent, not in love to these patents, but to the passage of the bill.

"The glass patent to be heard on Monday, whether it be a grievance or not.

"13 May, 22 Jac. 1, A. D. 1624 (p. 703). Sir Edward Coke reporteth from the conference about the bill of monopolies; for the exemption of the *subpœna* office, writing to the great seal, and glasses; to leave these as before at common law."

"24 May (p. 710). The amendments and provisoes in the bill of monopolies twice read, and committed.

"25 May (p. 711). Bill passed."

Objections at Common Law.—The preceding extracts show the various objections which may be raised to grants of this nature, and the principles by which their validity is to be tried.

The objection to the subject-matter, that it must not be for the means, but for the thing, has not succeeded in any reported cases, with the exception of *Bircot's* (as to which, *post* 31, n. p.); and it may reasonably be suggested, that glass made in a different manner, or iron made with a new fuel, *ante* 16, n. is substantially and really a new thing; that each of these is a new manufacture.

The failure of the consideration clearly renders the grant void; this was acted on both in the smalt and glass patents, and the principle has been recognised in many subsequent cases. *Post* 41.

The objection on the ground of the length of the term, applies to the smalt as well as to the glass patent, and would probably be a valid objection at common law.

The utility of the invention in respect of the quality of the article made, and the price at which it was sold, appears both from the recital of the several letters patent, and the preceding extracts, to have been a practical test of the validity of the grant: the failure of the execution, as it is termed above, is clearly such a failure of consideration as would avoid the grant. See *post* 42, n.

STATUTES ON LETTERS PATENT.

18 H. 6, c. 1.

18 H. 6, c. 1.

For regulating Patents by the King (a).

[Enacts that letters patent should bear the date of the King's warrant delivered into Chancery.]

6 H. 8, c. 15.

6 H. 8, c. 15. *An act avoiding second Letters Patent granted by the King (b).*

27 H. 8, c. 11.

27 H. 8, c. 11.

An act concerning Clerks of the Signet and Privy Seal (c).

[The King's grants to be brought to the secretary or to a clerk of the signet. A warrant by a clerk of the signet to the lord keeper of the privy seal. A warrant from the privy seal to the great seal, &c. But the lord chancellor may dispense with the fees.]

3 and 4 Ed. 6, c. 4.

3 & 4 Ed. 6, c. 4.

An act concerning Grants and Gifts, made by Patentees out of explained by Letters Patent (f).

13 El. c. 6.

13 El. c. 6.

An act that the exemplification or constat of Letters Patent, shall be as good and available as the Letters Patent themselves.

43 El. c. 11.

43 El. c. 11.

An act for the Confirmation of Grants made to the Queen's Majesty, and of Letters Patent made by her Highness to others.

(a) This and the subsequent statutes here cited, are printed in my *Law and Practice*, with notes and observations on their applicability to letters patent for inventions as at present granted.

(b) The practice of granting successive letters patent for the same subject-matter, appears from Baker's and Mansell's patents. *Ante.*

(c) Further regulated (57 G. 3, c. 63), and the office to be abolished (2 W. 4, c. 49).

(f) Some doubt being entertained whether this statute applied to patentees themselves, as well as those claiming under them, it was explained and amended by 13 Eliz. c. 6.

21 Jac. 1, c. 3.

THE STATUTE OF MONOPOLIES.

*Passed 25 May, 22 Jac. 1, A.D. 1624 (g).**An act concerning Monopolies and Dispensations with Penal Laws, and the Forfeitures thereof.* 21 Jac. 1, c. 3.

"Forasmuch as your Most Excellent Majesty, in your royal judgment, and of your blessed disposition to the weal and quiet of your subjects, did, in the year of our Lord God one thousand six hundred and ten, publish in print (*h*) to the whole realm, and to all posterity, that all grants of monopolies and of the benefit of any penal laws, or of power to dispense with the law, or to compound for the forfeiture (*i*), are contrary to your Majesty's laws, which your Majesty's declaration is truly consonant and agreeable to the ancient and fundamental laws of this realm (*k*): And whereas your Majesty was further graciously pleased expressly to command that no suitor should presume to move your Majesty for matters of that nature; yet nevertheless upon misinformations and untrue pretences of public good, many such grants have been unduly obtained, and unlawfully put in execution, to the great grievance and inconvenience of your Majesty's subjects, contrary to the laws of this your realm, and contrary to your Majesty's most royal and blessed intention so published as aforesaid." For avoiding whereof, and preventing the like in time to come, may it please your Excellent Majesty, at the humble suit of the Lords Spiritual and Temporal, and the Commons, in this present parliament assembled, that it may be declared (*l*) and enacted by authority of this present parliament, that all monopolies and all commissions, grants, licenses, charters, and letters patent, heretofore made or granted, or hereafter to be made or granted, to any person or persons, bodies politic or corporate whatsoever, of or for the sole (*m*)

All monopolies
&c., shall be
void.

(*g*) Every act of parliament previous to the 33 G. 3, c. 13, was considered as passed, and relates back to the first day of the session, unless otherwise provided for by the act. 4 Inst. 25.

This must be borne in mind, otherwise Mansell's patent (*ante*) excepted in the act (*post*) would appear to bear date subsequent to the date of the act 21 Jac. 1.

(*h*) This publication was entitled, "A declaration of his Majesty's pleasure, &c." It was published A. D. 1610, out of the king's seal to law and justice, and states, that monopolies are things against the laws of this realm, and therefore expressly commands that no suitor presume to move the king to grant any of them. 11 Rep. 88 *b*. The judgment in the case of monopolies (*Darcy's case, ante*) was the principal motive for publishing this book, and that book was a great

motive of obtaining the royal assent to this statute. 3 Inst. 182. For the definition of monopoly, *ante* 5.

(*i*) As to these, see notes to the Statutes in *Law and Practice*.

(*k*) See case of monopolies, *ante*.

(*l*) This act is simply declaratory of the common law.

(*m*) The word sole, according to the observation of Sir E. Coke, is here applied to five several things, whereof four are special, and the fifth 'sole using,' is so general, that no monopoly can be raised but will be within the reach of this statute, and yet for more caution the words "or of any other monopolies," are added, and by reason of these words "sole using," divers provisions are made by this act. The words also "of any thing" are of so large an extent, as to cause some exceptions in the subsequent clauses. 3 Inst. 187.

21 Jac. 1, c. 3. buying, selling, making, working, or using of any thing within this realm or the dominion of Wales, or of any other monopolies, or of power, liberty, or faculty to dispense with any others, or to give license or toleration to do, use, or exercise any thing against the tenor or purport of any law or statute, or to give or make any warrant for any such dispensation, license, or toleration to be had or made; or to agree or compound with any others for any penalty or forfeitures limited by any statute; or of any grant or promise of the benefit, profit, or commodity of any forfeiture, penalty, or sum of money, that is or shall be due by any statute, before judgment thereupon had; and whatsoever any way tending to the instituting, erecting, strengthening, furthering, or countenancing of the same, or any of them, are altogether contrary to the laws of this realm, and so are and shall be utterly void and of none effect, and in nowise to be put in use or execution.

Monopolies, &c., shall be tried by the common laws of this realm.

II. And be it further declared and enacted by the authority aforesaid, that all monopolies, and all such commissions, grants, licenses, charters, letters patent, proclamations, inhibitions, restraints, warrants of assistance, and all other matters and things tending as aforesaid, and the force and validity of them and of every of them, ought to be and shall be for ever hereafter examined, heard, tried and determined, by and according to the common laws of this realm, and not otherwise (n).

* * * * *

Letters patent heretofore granted for twenty-one years, to use new manufactures, saved.

V. Provided nevertheless, and be it declared and enacted, that any declaration before-mentioned shall not extend to any letters patent and grants of privilege for the term of one-and-twenty years or under, heretofore made, of the sole working or making of any manner of new manufacture, within this realm, to the first and true inventor or inventors of such manufactures, which others at the time of the making of such letters patent and grants, did not use, so they be not contrary to the law, nor mischievous to the state, by raising of the prices of commodities at home, or hurt to trade, or generally inconvenient, but that the same shall be of such force as they were or should be if this act had not been made, and of none other: and if the same were made for more than one-and-twenty years, that then the same, for the term of one-and-twenty years only, to be

(n) This act having in the preceding section declared all monopolies, &c., to be void by the common law, has provided by this that they shall be examined, heard, tried, and determined, in the courts of common law, according to the common law, and not at the council table, star chamber, chancery exchequer chamber, or any other court of like nature, but only according to the common laws of the realm, and not otherwise. For (according to Sir E. Coke) such boldness the monopolists took, that often at the council

table, star chamber, chancery and exchequer chamber, petitions, informations, and bills, were preferred, pretending a contempt for not obeying the commandments and clauses of the said grant of monopolies and of the proclamations concerning the same. 3 Inst. 182, 183.

The court of the star chamber considered all infringements of patents and grants of the crown as contempt of royal authority, and on that principle supported any patent the crown thought fit to grant.

accounted from the date of the first letters patent and grants 21 Jac. 1, c. 3. thereof made, shall be of such force as they were or should have been if the same had been made but for the term of one-and-twenty years only, and as if this act had never been had or made, and of none other (o).

VI. Provided also, and be it declared and enacted, that any declaration, before-mentioned, shall not extend to any letters patent and grants of privilege for the term of fourteen years, or under, hereafter to be made, of the sole working or making of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufactures, which others at the time of making such letters patent and grants shall not use, so as also they be not contrary to the law, nor mischievous to the state, by raising prices of commodities at home, or hurt of trade, or generally inconvenient. The said fourteen years to be accounted from the date of the first letters patent or grants of such privilege hereafter to be made, but that the same shall be of such force as they should be, if this act had never been made, and of none other (p).

Letters patent hereafter to be granted for fourteen years, for new manufactures, saved.

* * * * *

(o) See post, note p.

(p) The following commentary on these sections is given by Sir E. Coke, 3 Inst. 181.

"There be in this act concerning monopolies, or sole buying, &c., many provisos. The first is, that this act shall not extend to any letters patent or grants of privilege, heretofore made, of the sole working or making of any manner of new manufacture. But that new manufacture must have seven properties. First, it must be for twenty-one years or under. Secondly, it must be granted to the first and true inventor. Thirdly, it must be of such manufactures, which any other at the making of such letters patent did not use; for albeit it were newly invented, yet if any other did use it at the making of the letters patent, or grant of the privilege, it is declared and enacted to be void by this act. Fourthly, the privilege must not be contrary to law. Such a privilege as is consonant to law, must be substantially and essentially newly invented; but if the substance was in use before, and a new addition thereunto, though that addition made the former more profitable, yet is it not a new manufacture in law. And so it was resolved in the Exchequer Chamber (E. T. 15, E. 4), in Bircot's case, for a privilege concerning the preparing and melting &c. of lead ore; for there it was said, that that was to put but a new button to an old coat, and it is much easier to add than to invent. And there it was also resolved, that if the new manufacture be substantially invented according to law, yet no old manufacture in use before can be prohibited. Fifthly, nor mischievous to the state, by raising the prices of commodities at home. In every such new manufacture that deserves a privilege, there must be *urgens necessitas et evidens utilitas*. Sixthly, nor to the hurt of trade. This is very material and evident. Seventhly, nor generally inconvenient. There was a new

invention found out heretofore, that bonnets and caps might be thickened in a fulling mill, by which means more might be thickened and fulled in one day, than by the labour of fourscore men who got their livings by it: it was ordained, that bonnets and caps should be thickened and fulled by the strength of men, and not in a fulling mill; for it was holden inconvenient to turn so many labouring men to idleness. If any of these seven qualities fail, the privilege is declared and enacted to be void, by this act; and yet this act, if they have all these properties, set them in no better case than they were before this act.

"The second proviso concerneth the privilege of new manufactures, hereafter to be granted. And this also must have seven properties. First, it must be for the term of fourteen years, or under. The other six properties must be such as are aforesaid, and yet this act maketh them no better than they should have been if this act had never been made, but only exempts them out of the purview and penalty of this law.

"The cause wherefore the privileges of new manufactures, either before this act granted, or which after this act should be granted, having these seven properties, were not declared to be good, was, for that the reason wherefore such a privilege is good in law is, because the inventor bringeth to and for the commonwealth a new manufacture, by his invention, costs and charges, and, therefore, it is reason that he should have a privilege for his reward (and the encouragement of others in the like) for a convenient time; but it was thought that the times limited by this act were too long for the private, before the commonwealth should be partaker thereof; and such as served such privileged persons by the space of seven years, in making or working of the new manufacture (which is the time limited by law of apprenticeship), must be apprentices or servants

Act not to extend to letters patent granted to Mansell for glass.

XIII. Provided also, and be it enacted, that this act, or any declaration, provision, penalty, forfeiture, or other thing before-mentioned, shall not extend or be prejudicial to a grant or privilege, for or concerning the making of glass, by his Majesty's letters patent under the great seal of England, bearing date the two-and-twentieth day of May, in the one-and-twentieth year of his Majesty's reign of England, made and granted to Sir Robert Mansell (g), Knight, vice-admiral of England: nor to a grant or letters patent, bearing date the twelfth of June, in the thirteenth year of his Majesty's reign of England, made to James Maxwell, Esquire, concerning the transportation of calves' skins: but that the said several letters patent, last mentioned, shall be and remain of the like force and effect, and as free from the declarations, provisions, penalties, and forfeitures before-mentioned, as if this act had never been had nor made, and not otherwise.

Nor to those granted to Baker for smalt, or Dudley for iron.

XIV. Provided also, and be it declared and enacted, that this act, or any declaration, provision, penalty, forfeiture, or other thing before-mentioned, shall not extend or be prejudicial to a grant or privilege for or concerning the making of smalt, by his Majesty's letters patent, under the great seal of England, bearing date the sixteenth day of February, in the sixteenth year of his Majesty's reign of England, made or granted to Abraham Baker (r); nor to a grant or privilege for or concerning the melting of iron ewer, and of making the same into cast-works or bars with sea coals or pit coals, by his Majesty's letters patent, under the great seal of England, bearing date the twentieth day of February, in the nineteenth year of his Majesty's reign of

still during the residue of the privilege, by means whereof such numbers of men would not apply themselves thereunto, as should be requisite for the commonwealth, after the privilege ended. And this was the true cause wherefore, both for the time passed and for the time to come, they were left of such force as they were before the making of this act."

The above observation of Sir E. Coke, or rather the doctrine founded upon it, that a patent for an addition would not be good, has been declared, in many cases, to be incorrect. See *per* Lord Loughborough, in *Arkwright v. Nightingale*, *post*, and *per* Buller, J., and Grose, J., in *Boulton & Watt v. Bull*, 2 H. Bl.

In the absence of all information respecting Bircot's invention, it may be questioned, if necessary, whether the words 'substantially and essentially newly invented,' do not show the real meaning of Sir Ed. Coke, and lead to the presumption that the privilege granted included the whole manufacture, old as well as new. It must also be remembered, at how low an ebb were the arts and manufactures of the country at that time; as the instance of a general inconvenience from the invention of the fulling mill shows. As to the real consequences of such inventions, see *Baines on the Cotton Manufacture*, 361.

(g) These letters patent are not within the 5th section. The grantee, Mansell, was not the true and first inventor of the manufacture which was the subject of the grant, viz. the making of glass with coal instead of wood; the letters patent themselves showing, *ante* 18, that Percivall was the true and first inventor; also, that the manufacture was not new at the time of the grant, others having practised the invention before. But for this exception, the term of the letters patent would have been reduced to twenty-one years, which, as Mansell probably had interest had court, would have endangered the passing of the bill. See *ante* 27, and *Journal of Commons*. The committee of grievances do not appear to have come to any decision on these letters patent, but those recited as repealed were declared a grievance.

(r) These letters patent are not within the 5th section. The first smalt patent, *ante* 9, shows that other persons were associated with Baker in the introduction of the invention; nor was the manufacture new within the realm at the time of the grant of the excepted patent. On these grounds, therefore, the letters patent would have been void unless specially excepted.

England, made or granted to Edward, Lord Dudley (*r*); but that the same several letters patent and grants shall be and remain of the like force and effect, and as free from the declarations, provisions, penalties, and forfeitures before mentioned, as if this act had never been had nor made, and not otherwise (*s*).

5 & 6 W. 4, c. 83.

5 & 6 W. 4,
c. 83.

An act to amend the law touching Letters Patent for Inventions (*t*).

2 & 3 Vict. c. 67.

2 & 3 Vict. c. 67.

An act to amend an act of the fifth and sixth years of the reign of King William the Fourth, intituled "An act to amend the law touching Letters Patent for Inventions" (*u*).

ACTS OF CHARLES I. A.D. 1641. SCOTLAND.

Act discharging Monopolies.

Our sovereign Lord and estates of Parliament, considering the great hurt and prejudice sustained by sundry his Majesty's lieges by the monopolies used and exacted within this kingdom, and which have been conferred to the use of any particular person or persons, to the great hurt and prejudice of others his Majesty's lieges, and especially the gifts for selling tobacco, granted to Sir Samuel Leslie and Thomas Dalmahoy; the patent of the leather, granted to the Earl of Mar; the patent of the pearling, granted to — Bannatyne; the patent of pearl, granted to Robert Buchan; the patent of armoury, granted to Henry Mauld; therefore our said sovereign lord and estates of parliament, by the tenor hereof, annul, rescind, and simply discharge, the gifts aforesaid, granted to the persons above men- *Scotch Act of Monopolies.*

(*r*) These letters patent, for all that appears on the face of them, are within the fifth section, and would, consequently, have been preserved to the grantee without this special exception. But, independently of the importance to the patentee of such an exception as a sort of judgment of parliament in favour of a grant, at a time when, from the abuse of the royal prerogative, all patents were looked upon with the greatest suspicion, and as grievances, it is very doubtful whether this patent would have been saved under that section, since it appears that Dud Dudley, the son of the grantee, was the true and first inventor. See his *Metallum Martis*, or iron made with pit coal, sea coal, &c. Lond. 1665, and *ante* 16.

(*t*) The conclusion of this and the preceding section, when taken in connexion with the preamble of the act, suggests the two following considerations: first, that there were certain grants which,

though partaking in some measure of the character of monopolies, were not really grants of monopolies within the meaning of the use of that term in the preamble; and, secondly, that the conditions of validity under the statute and at common law are different. At common law the introducer as well as the inventor could be the grantee, and the term was frequently more than fourteen years; whereas, by the statute, the true and first inventor alone can be the grantee. See *ante* 8.

(*u*) This act, commonly called Lord Brougham's Act, does not affect the subject-matter of letters patent, as defined by the statute of monopolies, but relates to matters of practice of the greatest importance to inventors. See *Law & Practice*, tit. Statutes.

(*u*) This act, like the preceding, relates merely to matters of practice. See *Law & Practice*, tit. Statutes.

tioned, and all that may follow or has followed thereupon, and ordains the same, and all other patents of that nature, purchased or to be purchased for the benefit of particular persons, in prejudice of the public, to cease and be ineffectual in all times coming.

The preceding act is merely declaratory of the law in respect of certain grants of monopolies, which, on the ground of public policy, were clearly illegal. The granting of exclusive privileges to the authors of new inventions, derives its origin in Scotland, as in this country, from the old common law of the realm, the crown having exercised its prerogative from time immemorial as to grants of this nature, in the same manner and upon the same conditions and same authority in both countries. The same abuses seem also to have prevailed, and the similarity between the above enactment and the statute of monopolies, *ante* 29, is very striking. The above, together with all other acts passed by the Scotch parliament during the troubles of Charles the First, was, in effect, repealed by the general recissory act, 1661, c. 15; and, in *McAndrews v. The Solicitors of Edinburgh* (11 S. D. and B. 812). Lord Glenlee says, "the act of 1641 is no part of the statute law, though no doubt, in common sense, an objection exists to the granting of monopolies." The above act is, however, frequently referred to as exhibiting the Scotch law of patents,

and as declaratory of the old common law of that realm.

Term of Scotch Patents.—It appears from the register of the great seal, the record of such grants for Scotland, that the term of the grants varied from 13 to 21 years. A patent was granted, 23d April, 1614, by James VI. to Sir George Bruce, for a new invention in the manufacture of iron, for thirteen years, and one in 1616 to James Shevis, for a machine to raise water from coal pits, for twenty-one years; and one 22d November, 1660, to John Brown, for a similar term, for a mode not before practised in Scotland, of refining sugar.

Since the passing of the English Statute of Monopolies, the term of fourteen years has been adopted as the term of the Scotch patents, and they now, in pursuance of the 24th article of the treaty of Union, pass under the seal appointed to be kept and used in Scotland, in all things relating to private rights or grants which usually passed under the great seal of Scotland, and which only concerned offices, grants, commissions, and private rights, within that kingdom.

EDISBURY'S PATENT.

3 W. & M.

Invention new
in England.

William and Mary, by, &c.: Whereas Kendrick Edisbury hath by his humble petition represented unto us, that with great charges and much time spent, he hath invented and found out a new art or invention of certain rollers to be used under the bodies of carriages, carts and waggons, instead of wheels, which will be far more useful than wheels, by amending and preserving as well the highways as private grounds, which said invention was never used in England before, and prayed us to grant him our letters patent for the sole use thereof, for the term of fourteen years: Know ye, therefore, that we, being willing to cherish and encourage all laudable endeavours and designs of such our subjects as have by their industry found out useful and profitable arts, mysteries, and inventions, and that the said Kendrick Edisbury may accordingly reap some fruit and benefit of his labour and charge, in and concerning the premises, of our especial grace, certain knowledge, and mere motion, have given and granted, and by these presents, &c. (a)

(a) These letters patent being prior to the clause requiring the enrolment of a specification,

no account of the manner in which the invention was to be carried into effect exists; so that they

EDGEBURY (*h*) v. STEPHENS.

A grant of a monopoly may be to the first inventor, by the 21 Jac. 1, and if the invention be new in England, a patent may be granted though the thing was practised beyond sea before; for the statute speaks of new manufactures within this realm; so that if it be new here, it is within the statute; for the act intended to encourage new devices useful to the kingdom, and whether learned by travel or by study it is the same thing. Agreed by Holt and Pollexfen, in the case of Edgubury v. Stephens (*i*).

The introducer of an invention into the realm is the inventor within the statute of James.

PRIVATE ACTS FOR PATENTS.

BUCK'S INVENTION (*a*).

A.D. 1651, c. 2.

Melting down Iron and other Metals with Stone Coal and other Coals without Charking (*b*).

Whereas Jeremy Buck, of Minchinhampton, in the county of Gloucester, Esq., by a new invention, doth undertake to melt or cause to be melted down iron, lead, tin, copper, brass, and other metals, with stone coal, pit coal, or sea coal, without charking thereof: Be it therefore enacted by this present parliament and by the authority thereof, that the said Jeremy Buck, his executors, administrators and assigns, and such as he, or they, or any of them, by writing under his, their, or any of their hands and seals, shall from time to time appoint (and none other), shall and may use, exercise and enjoy the art, skill and mystery of melting down iron ore and cinders into raw iron, and of other ore and metal, with stone coal, pit coal, or sea coal, without charking thereof, and the sole and only benefit of his new invention aforesaid, for and during the term of fourteen years from the

New invention for melting iron, &c. by coal, without charking it.

To use the said invention for fourteen years.

confer on the grantee the exclusive use of rollers under carriages, instead of wheels, in whatever manner the rollers are applied.

The substitution of rollers for wheels might have been a useful invention at the time, regard being had to the greater difficulty of making wheels, and to the state of the roads at that period. The patent, as it would appear from the following case, was supported.

(A) There is no patent on the rolls about this time of this name, but the is as written is extremely like *g*, and I have no doubt that the following case relates to the preceding grant.

(i) The decision in this case that the importer or introducer of an invention, not used before within the realm, is the true and first inventor within the meaning of the Statute of Monopolies,

is in accordance with the old common law; and it has been the uniform practice to the present time to grant letters patent for such inventions, and the legislature have repeatedly recognised the principle by granting rewards and exclusive privileges to such authors or introducers. See *post* 37, n. and Lombe's Patent, and the recitals in various acts, *post* 38-40, and notes.

(a) This invention, as the act shows, related to the manufacture of iron, which had been the subject of so many early patents, *ante* 16. The act contains no account of the manner in which the invention was to be performed, but the proposed plan is said to have failed entirely.

(b) See Scobell's collections of Acts and Ordinances, during the Commonwealth.

first day of March, in the year of our Lord God, 1650; and no person or persons, bodies politic or corporate, whatso shall make use of the said new invention within the commonwealth of England, or any the dominions thereof, during the time of fourteen years (c).

Methods now in use not prohibited.

Provided always, and it is hereby declared and enacted, all and every person and persons may use such ways and for melting down any iron ore, cinder, or other metals, as now use or have heretofore lawfully used to do, or any way or works hereafter by them newly to be invented, they make not use of the said new invention of him the Jeremy Buck (d).

Offenders to forfeit 10*l.* as a penalty.

And it is further enacted, by the authority aforesaid, every person offending against this act for every day w^h such offence shall be committed, shall forfeit and lose to said Jeremy Buck, his executors, administrators and as respectively, the sum of 10*l.* in the name of a pain or p^{ai}n to be recovered by the said Jeremy Buck, his executors, administrators and assigns, by action of debt to be grounded upon act, in any court of record within this commonwealth, any action of debt now doth or shall hereafter be tryable, ther with damages for non-payment thereof, and costs of in which action of debt, or for the staying whereof, no eswager of law, protection or injunction, or any other means delay, shall or may be granted, admitted, or allowed.

The inventor to take apprentices during the last seven years of the term.

Provided also, that the said Jeremy Buck, and his as after seven years of the term hereby granted, do and shall apprentices, and teach them the knowledge and mystery of said new invention (e).

(c) It may be observed, that this act contains a distinct announcement of the use of raw coal and cinders in the manufacture of iron. The plan failed entirely; but the application of these substances to that purpose, has been the subject of many subsequent patents, and is now in successful and constant operation.

These facts are important, in connexion with the question of how far the publication of an invention is a user in law, so as to destroy the patent of a subsequent independent inventor, who introduces what is apparently the same invention into general and successful operation.

(d) A proviso to the same or very similar effect, is inserted in many acts for extending the terms granted by letters patent. *Post* 38-40. Before a specification was required to be enrolled, and subsequently to the introduction of the clause into the letters patent requiring that instrument, unless the act of extension saved all objections in law, competent against such letters patent, the protection of the public required some such declaration and express reservation.

(e) This proviso is a distinct recognition of the principle, that the instruction of the public in the invention, is part of the motive or policy of the

grant. It is said (*ante* 6), that a patent granted for some reasonable time, until the subjects may learn the invention; and Sir I seems to have thought (*ante* 31, n. p.) that fourteen years is too long a period, since the had served the ordinary term, namely, seven of apprenticeship, must continue servants prentices to the end of the term of the patent. It is obvious, that unless a party be compelled to teach others, by taking apprentices, or to keep the invention in some manner, he might keep the secret of his invention to himself, and the public would be in no respect benefitted. All the inconveniences are entirely obviated by the clause in the letters patent, as granted since 1711, requiring the enrolment of a specification, the fundamental principle of which is, that the inventor shall describe his invention in the fullest and most distinct manner which the subject admits, so that other persons may be enabled to profit in as full and beneficial a manner as the inventor himself. The earliest patent I have met with which the clause requiring the specification, is that granted 1st April, 1712, to Nasmith. See *Law & Practice*, *IND.* tit. 10, c. 1.

9 & 10 W. 3, c. 43.

An act for the better encouragement of the Royal Lustring Company, &c. (f) *Act, 1698.*

After reciting that the manufacture of black lustrings and alamonds set up by the said Company, had been very advantageous and beneficial to the kingdom by employing great numbers of the poor (g), &c. prohibits the importation of foreign alamonds, except under certain conditions; and gives exclusive privileges for fourteen years, with various other enactments as to the trade.

(f) Letters patent had been granted, 4 Jac. 2, for a new invention of making, dressing, and lustrating, silks, &c.; and a company had been incorporated by letters patent, 4 W. & M., for working the said invention, which was further incorporated by this act.

(g) These recitals are of great importance, as showing the consequences of the importation and introduction of new inventions, and the principles by which the crown and legislature were influenced in granting the privileges in question.

Other Acts.—A variety of patents were granted, and acts passed, conferring exclusive privileges during the time of Charles I., II., and the Commonwealth. Many of these were monopolies, in the most obnoxious sense of the term, but the following appear deserving of notice; they are also important, as showing the progress of invention.

Letters patent were granted, 6 C. 1 (A.D. 1630), for the realm of England and Ireland, to David Ramsaye, and three others, "for an engine, instrument, or device, not heretofore in use, or put in practice by any, within our realms or dominions, by way of a barrel engine, and otherwise, most fit and necessary for the raising of water out of mines, coal pits, or any other place, how deep soever, to any high place, and other uses tending to the public good, ease, and benefit, of our kingdoms, and subjects thereof."

Various other patents, one including nine different projects, and some with extraordinary and illegal powers, were granted by Charles, sec. 19. *Rymer's Fœdera*, 239.

The following acts should be noticed:—

15 C. II., c. 12 (Private Acts), A.D. 1663.—"An act to enable the Marquis of Worcester to receive the benefit and profit of a water-commanding engine, by him invented." This engine has been supposed to be the steam engine; but it was probably a different engine from that described as "a fire water work," at No. 68 of his *Century of Inventions*. *Per Mr. Farey*, *Parl. Rep. on Patents*, p. 169.

22 & 23 C. II. (Private Acts), A.D. 1670.—An act for granting to Sir Philip Howard and Francis Watson the sole use of a manufacture, art, or invention, for the benefit of the shipping. The subject-matter of the preceding was the sheathing or covering vessels with thin sheets of lead instead of copper. See 8 *Phil. Trans.*, No. 100, p. 61, 92.

10 & 11. W. 3, c. 31 (Private Acts), A.D. 1699.—"An act for the encouragement of a new in-

vention by Thomas Savery, for raising water and occasioning motion to all sorts of mill-work, by the impellent force of fire." Letters patent were granted 25th July, 1698, to Thomas Savery, for his invention, "which will be of great use and advantage for draining mines, serving towns with water, and for the working of all sorts of mills where they have not the benefit of water, nor constant winds."

This was an important invention in its time, being the first steam engine which was actually applied to do work; it was soon superseded by Mr. Newcomen's fire engine, invented in 1710. It does not appear that Newcomen obtained any such act, but it has been said that he was obliged to come to an agreement with Savery, and work under his patent and this act.

Newcomen's engine was found of great use, being that commonly known by the term atmospheric engine, and the type of the engine so much improved by Watt.

11 & 12 Anne, s. 2, c. 15.—"An act for providing a public reward for such person or persons as shall discover the longitude at sea." Various large sums of money were paid to inventors under this act.

12 G. 2, c. 23.—An act for providing a reward to Joanna Stephens, for the discovery of a medicine.

16 G. 2, c. 25 (Private), A.D. 1743.—An act vesting in Elwick the sole property of an engine, for an additional term of a patent.

23 G. 2, c. 63 (Private).—An act for vesting in Pownoll's children an invention which their father did not live to complete, and by which he had impaired their fortunes; and granting additional term.

24 G. 2, c. 28 (Private).—An act vesting in Michael Menzies the sole property in a certain machine for conveying coals, &c.; and granting additional term.

5 G. 2, c. 8.

LOMBE'S PATENT, 9 Sept. 5 G. 1. A.D. 1719.

Act
A.D. 1732.

An act for providing a recompense to Sir Thomas Lombe, for discovering and introducing the arts of making and working the three capital Italian engines for making Organzine silk, and for preserving the invention for the benefit of this kingdom.

The increase of
trade, and em-
ployment of
poor.

The introduc-
tion of engines
for silk manu-
facture from
abroad.

Great expense
of erecting
buildings and
difficulties
encountered.

After reciting as follows, "Whereas the riches, strength, and prosperity, of this kingdom depend on the trade thereof: And whereas the introducing and improving such new arts and inventions, as will employ great numbers of our poor, keep our money at home, and increase the profitable trade carried on by the exportation of our own manufactures, tend greatly to the securing and enlarging the general trade and commerce of Great Britain, and ought, by all proper ways and means, to be encouraged: And whereas Thomas Lombe, of, &c. did with the utmost difficulty and hazard, and at a very great expense, discover the arts of making and working the three capital engines made use of by the Italians to make their organzine silk, and did introduce those arts and inventions into this kingdom: And whereas his late Majesty king George was graciously pleased, by his letters patent, bearing date the ninth day of September, in the fifth year of his reign, under the great seal of Great Britain, to give and grant unto the said Thomas Lombe, now Sir Thomas Lombe, his especial license, full power, sole privilege and authority, to exercise, work, use, and enjoy his new invention of three sorts of engines by him the said Thomas Lombe found out, never before made or used in Great Britain, one to wind the finest raw silk, another to spin, and the other to twist the finest Italian raw silk into organzine, within, &c. &c. the whole profit, &c. And whereas the said Sir Thomas Lombe, since the granting the said letters patent, hath at a further great expense erected large buildings, and therein set up the said engines or machines, and put the said invention in use and practice on the river Derwent, at the town of Derby, for making organzine silk, and applied himself with the utmost care and diligence to improve the same, in order to render it of greater use and benefit to this kingdom: but by reason of the long time required to finish and complete the said buildings and engines, and the great obstruction this undertaking received by the king of Sardinia's prohibiting the exportation of raw silk, which the said engines were made to work; and afterwards by reason of the great difficulty of bringing the manufacture to full perfection, which could not be effected by the most diligent application until about a year ago, the said Sir Thomas Lombe has been de-

prived of the benefit intended by the said letters patent; therefore for providing a proper recompense to the said Sir Thomas Lombe, and preserving the said invention for the benefit of the trade of this nation," it is enacted, that there should be applied and paid to the said Sir Thomas Lombe, his, &c. the sum of 14,000*l.* as a reward and recompense to him for the eminent service he has done this nation, in discovering, introducing, and bringing to full perfection, at his own great expense as aforesaid, a work so useful and beneficial to this kingdom.

Proviso, that his Majesty, under sign manual, may appoint two persons to inspect said three engines, and to take a perfect and exact model thereof, and to deposit the same in such place as shall be appointed, to secure and perpetuate the art of making the like engines for the advantage of the kingdom. Sir Thomas Lombe on refusal to permit such model to be taken to refund the reward(*d*).

Model to be preserved.

15 G. 3, c. 52.

An act for enlarging the term of Letters Patent (17 March, 8 G. 3) to William Cookworthy, of Plymouth, chymist, for the sole use and exercise of a discovery of certain materials for making Porcelain, in order to enable Richard Champion, of Bristol, merchant (to whom the said Letters Patent have been assigned), to carry the said discovery into effectual execution for the benefit of the public. Act A.D. 1775.

After reciting the grant of the letters patent(*a*), and further reciting, "whereas the said Richard Champion hath been at a very considerable expense, and at great pains and labour, in prosecuting the said invention, and by reason of the great difficulty attending a manufacture upon a new principle, hath not been able to bring the same to perfection until within this last year; and it will require further pains, labour, and expense, to render the said invention of public utility; for all which trouble and expense the said Richard Champion will not be able to receive an adequate compensation, unless the term granted by the said letters patent be prolonged;" enacts, that all and every the powers, &c. which in and by the said letters patent were originally given and granted to him, the said William Cookworthy, his, &c. and no further or greater than he or the said Richard Champion would have been entitled to if this act had not been made,

The great difficulty of a manufacture on a new principle.

(*d*) The model so taken was deposited in the Tower of London. The same principle which led to the introduction of the clause respecting the enrolment of the specification, led to this, viz.

that the invention might be preserved to the realm.

(*a*) See note *b*, post.

should be and the same were thereby given and granted to the said Richard Champion, his, &c. and should be held, exercised, and enjoyed by him, &c. for the remainder of the original term, and for fourteen years more, in as ample a manner as if the said letters patent had been granted to the said Richard Champion.

Proviso, That the said Richard Champion should enrol a specification of the mixture and proportions of the raw materials composing the porcelain and the glaze of the same.

Proviso, That nothing in this act should hinder any person from using the raw materials in different proportions (b).

(b) The effect of this proviso is to confine the exclusive privilege to the particular proportions of the materials stated in the specification. The recital in the letters patent would embrace the general application of the materials therein specified to the purposes of pottery. The suggestions in the petition are as follow: "That the said Cookworthy had, by a series of experiments, discovered that materials of the same nature with those of which the Asiatic porcelain is made, are to be found in immense quantities in our island of Great Britain, which ingredients are distinguished in our two counties of Devon and Cornwall by the name of moorstone and growan and growan clay: that the ware which he hath prepared from these materials hath all the characters

of the true porcelain, in regard to grain, transparency, colour, and infusibility, in a degree equal to the best Chinese or Dresden ware, whereas all the manufactures of porcelain hitherto carried on in Great Britain have been only imitations of the genuine kind, wanting the beauty of colour, the smoothness and lustre of grain, and the great characteristic of genuine porcelain, sustaining the most extreme degree of fire without melting: That this discovery had been attended with great labour and expense, and, to the best of his knowledge and belief, in regard to this kingdom, is new, and his own, the materials being, even at this time, applied to none of the uses of pottery but by him, and those under his direction."

Other Acts.—Many acts subsequent to the preceding have been passed, conferring similar privileges, the more important of which will be noticed hereafter. The following are some of the acts alluded to.

Watt's act, 15 G. 3, c. 61, A.D. 1775, whereby Watt's patent, 5th January, 1769, for England and the Colonies, was extended to Scotland, with a term of twenty-five years from the passing of the act. See *Boulton and Watt v. Bull*.

Taylor's act, 16 G. 3, c. 18, A.D. 1776.—Extension of term and clause for granting licenses at certain rates.

Liardet's act, 16 G. 3, c. 29, A.D. 1776, extending the patent to Scotland, and prolonging the term seven years. See *Liardet v. Johnson*.

Hartley's act, 17 G. 3, c. 6, A.D. 1777, extending the patent to Scotland, and prolonging the term for twenty-eight years.

Bancroft's act, 25 G. 3, c. 38, A.D. 1785.

Turner's act, 32 G. 3, c. 72, A.D. 1792. See *Turner v. Winter*.

Booth's act, 32 G. 3, c. 73, A.D. 1792, dispensing with the enrolment of the specification.

Ashton's acts, 34 G. 3, c. 63, A.D. 1794, and 35 G. 3, c. 97, removing doubts as to legality of certain processes in tanning hides, and prolonging term.

Conway's act, 35 G. 3, c. 68, A.D. 1795.

Koop's act, 41 G. 3, c. 125 (L. & P.) A.D.

1801, enabling transfer of patent right to sixty persons.

Cartwright's act, 41 G. 3, c. 133 (L. & P.), A.D. 1801, vesting certain patent rights, and extending term.

Fourdrinier's act, 47 G. 3, s. 2, c. 131 (L. & P.), A.D. 1807, vesting certain patents.

Lee's act, 53 G. 3, c. 179 (L. & P.) A.D. 1813, dispensing with the enrolment of the specification.

Langton's act, 10 G. 4, c. 135, and 1 & 2 W. 4, c. 6 (L. & P.), extending term, and confirming privileges throughout His Majesty's dominions, except Ireland, and giving many unusual powers.

Hollingrake's act, 10 G. 4, & 1 W. 4, c. 80 (L. & P.), A.D. 1830, extending terms of patents of 1818 and 1819, for nine years from the passing of the act.

The above acts show the principles which the legislature have adopted, in confirming and extending the privileges granted by letters patent. The same principles have been pursued by the Judicial Committee of the Privy Council, in confirming and granting letters patent under Lord Brougham's act.

Many other acts have been recently passed, but they relate principally to the formation of companies for working letters patent under special circumstances.

R. v. MUSSARY.

[Bull, N. P. 76 a.]

Respecting patents, the following general rules were laid down by *Lee, C. J.* (M. T. 12 G. 2, A.D. 1738):

1st. Every false recital in a thing not material will not vitiate the grant if the king's intention is manifest and apparent. False recitals or suggestions will vitiate a grant.

2d. If the king is not deceived in his grant by the false suggestion of the party, but from his own mistake upon the surmise and information of the party, it shall not vitiate or avoid the grant.

3d. Although the king is mistaken in point of law or matter of fact, if that is not part of the consideration of the grant it will not avoid it.

4th. Where the king grants *ex certâ scientiâ et mero motu*, those words occasion the grant to be taken in the most liberal and beneficial sense, according to the king's intent and meaning expressed in his grant.

5th. Although in some cases the general words of a grant may be qualified by the recital, yet if the king's intent is plainly expressed in the body of the grant the intent shall prevail and take place.

A writ of *scire facias* to repeal letters patent lies in three cases: 1st. When the king doth grant by several letters patent one and the self-same thing to several persons, the first patentee shall have a *sci. fa.* to repeal the second: 2d. When the king doth grant a thing upon a false suggestion, he *prærogativâ regis* may by *sci. fa.* repeal his own grant: 3d. When the king doth grant any thing which by law he cannot grant. 4 Inst. 88. Cases in which a *scire facias* lies.

Where a patent is granted to the prejudice of a subject, the king of right is to permit him upon his petition to use his name for the repeal of it. *Butler's case*, H. 31 & 32 Car. 2, 2 Vent. 344.

The preceding most probably did not relate to letters patent for an invention; but I have not found any record in the name of the defendant on the patent rolls of this period.

The rules here laid down apply generally to royal grants, and have been recognised in many cases of letters patent for inventions.

The authorities upon which the above rules rest are numerous, as the case of the *Alton Woods*, 1 Co. Rep. 27; *Arthur Legat's case*, 10 Co. Rep. 109; and *Earl of Devonshire's case*, 11 Co. Rep. 894. See *Law and Practice, Ind. Tit. Suggestion*, the iron patents, ante 16, n. and the following.

Letters patent were granted for "certain improvements in steam engines, and in machinery

for propelling vessels," and one of the inventions as described in the specification not being an improvement, the grant was held bad for falsity of suggestion.

Parke, B., in delivering the judgment of the Court of Exchequer, said, "The question is whether this patent, which suggests that certain inventions are improvements, is avoided, if there be one which is not so. And upon the authorities we feel obliged to hold that the patent is void, upon the ground of fraud on the crown, without entering into the question whether the utility of each and every part of the invention is essential to a patent, where such utility is not suggested in the patent itself, as the ground of the grant. That a false suggestion of the grantee avoids an

ordinary grant of lands or tenements from the crown, is a maxim of the common law, and such a grant is void, not against the crown merely, but in a suit against a third person. (*Travell v. Carteret*, 3 Lev. 135. *Alcock v. Cooke*, 5 Bing. 340.) It is on the same principle that a patent for two or more inventions, when one is not new, is void altogether, as was held in *Hill v. Thompson*, and *Brunton v. Hawkes*; for although the statute invalidates a patent for want of novelty, and consequently by force of the statute the patent would be void, so far as related to that which was old, yet the principle on which the patent has been held to be void altogether is, that the consideration for the grant is the novelty of all, and the consideration failing, or in other words, the crown being deceived in its grant, the patent is void, and no action maintainable upon it. We cannot help seeing, on the face of this patent, as set out in the record, that an improvement in steam engines is suggested by the patentee, and is part of the consideration for the grant, and we must reluctantly hold, that it is void for the falsity of that suggestion. In the case of *Lewis v. Marling*, this view of the case, that the patent was void for a false suggestion, does not appear by the report to have been pressed on the attention of the court, or been considered by it. The decision went upon the ground that the brush was not an essential part of the machine, and that want of utility did not vitiate the patent, and besides, the improvement by the introduction of the brush is not recited in the patent itself as one of the subjects of it, which may make a difference." *Morgan v. Seaward*, 2 M. & W. 544, and *post*.

The distinction pointed out by the learned judge between the case of a false recital in the letters patent, and a false statement not recited in the patent by way of suggestion, as an error in the specification, is of the greatest importance. It would appear that a distinction is to be drawn between such an error in the specification as will render a suggestion in the letters patent false,

and such an error, in a matter of direction or otherwise, as affects the suggestion in some degree short of the preceding, as, for instance, to diminish the extent of utility. Other defects in a specification, as insufficiency of description, vitiate by reason of non-compliance with the proviso in the letters patent.

The two classes of defects above specified may be distinguished, 1st. as false suggestion: 2d. as insufficient description; the former may be considered as on the record and for the court, the latter for the jury.

Of the former class are those of *Hill v. Thompson*, 8 Taun. 375, and *Brunton v. Hawkes*, 4 B. and Ald. 541, already mentioned, and the following:

Letters patent for a watch, the invention, as disclosed by the specification, being of a particular movement. *Jessop's case*, 2 H. Bl. 489.

Letters patent for "a new and improved method of drying and preparing malt," the specification describing an invention which consisted in submitting malt, prepared by the ordinary process, to a high degree of temperature, and thus producing a colouring material for beer, and not the known substance from which beer was to be made, were repealed by *acire facias*. *R. v. Wheeler*, 2 B. & Ald. 349.

Letters patent being for "a machine for sharpening knives, scissors, and razors," and the specification disclosing a method applicable to knives only, the plaintiff was nonsuited. *Felton v. Greaves*, 3 C. & P. 61.

Of the second class are that of *Lewis v. Marling*, 10 B. & C. 22, mentioned above, and the following:

The jury found that the invention was new and useful on the whole, but that the machine was not useful in some cases. Held sufficient, *Harworth v. Hardcastle*, 1 Bing. N. C. 189.

The court does not mean to intimate any doubt as to the validity of a patent for an entire machine or subject which is, taken altogether, useful, though a part or parts may be useless. *Morgan v. Seaward*, 2 M. & W. 544, and *post*.

DOLLOND'S CASE.

Title.

Letters patent to John Dollond, 19 April, 31 G. 2 (A. D. 1758) for "a new method of making the object glasses of refracting telescopes by compounding mediums of different refractive qualities, whereby the errors arising from the different refrangibility of light, as well as those which are produced by the spherical surfaces of the glasses, are perfectly corrected."

Specification.

I, the said John Dollond, do hereby declare, that my said new method of making the object glasses of refracting telescopes is to be performed in the manner following (that is to say), the principal glass of a refracting telescope is that which is farthest from the eye, and is commonly called the object glass, because it is at that end of the telescope which is directed towards the object. This glass refracts the rays which proceed from the object in such a manner as to form an image of the aforesaid object in the focus, which image is magnified by the eye glasses; but as every ray of light consists of parts that differ in their

degrees of refrangibility, an image formed by refraction is thereby rendered very defective, as all opticians very well know. Now in these new telescopes the images of objects are formed by the difference between two contrary refractions, the object glass being a compound of two or more glasses put close together, whereof one is concave and the other convex. The excess of refraction by which the image is formed is in the convex glass, which is made of a medium or substance in which the difference of refrangibility is not so great as in the substance which the concave is made of, therefore their refractions being proportional to their difference of refrangibility, there remains a difference of refraction by which the image is formed, without any difference of refrangibility to disturb the vision. The radii of the surfaces of each of these glasses are likewise so proportioned as to make the aberrations or errors which proceed from the spherical surfaces of these glasses respectively equal, and being contrary, they destroy each other.

In witness, &c.

The invention described and claimed in the preceding, is the general method of making the object glass of telescopes, by combining a convex and a concave glass of media having different refractive powers, and the media used in practice are crown glass for the convex glass, and flint glass for the concave glass; but these particular substances are not specified, and whether any other substances could be used, or whether the inventor knew that these alone would succeed, is a question which, on an objection being raised to the specification on that ground, would have been for the jury.

With respect to this patent, it was said in argument, "Dollond's telescopes are certainly a manufacture within the statute; they consist of principles reduced into form and practice; and the patent is for glasses completely formed,

not for mere principles; the specification describes the manner in which the invention is to be carried into effect, with all the perspicuity of which the thing is capable." 2 H. Bl. 472.

And *Buller, J.*: "Dollond's patent was for object glasses, and the specification properly stated the method of making those glasses." *Ibid.* 487.

And *Heath, J.*: "I consider that as substantially an improved machine." *Ibid.* 482.

The rules with respect to the curvature of the surfaces, are matters of theory, known to opticians and persons accustomed to grind lenses.

It was suggested by *Eyre, C. J.*, (2 H. Bl. 493.) that the above was perhaps exceptionable, as being for the "method of producing a new object glass, instead of being for the new object glass produced," but the manufacture is the same, whatever the terms in the title of the patent.

DOLLOND v. ———

This was an action for the infringement of the preceding patent, and the plaintiff succeeded; the case is not reported (a), but it was frequently alluded to in the subsequent case of *Boulton and Watt v. Bull*, both in the argument and judgments of the court.

BULLER, J. (b): The objection to Dollond's patent was, that he was not the inventor of the new method of making object glasses, but that Dr. Hall had made the same discovery before him. But it was holden, that as Dr. Hall had confined it to his closet,

The publisher is the true and first inventor within the statute.

(a) The following notice is contained in the *Gentleman's Magazine*, vol. 36, p. 102, 1766. "Tuesday, Feb. 18. A cause was tried in the Court of Common Pleas, wherein Mr. Dollond, optician in the Strand, was plaintiff, and Mr. Champness, mathematical instrument maker in Cornhill, de-

fendant; the cause of action was, the latter making a telescope in imitation of the patent telescopes of the former. The fact being proved, the plaintiff obtained a verdict, with £250 damages."

(b) 2 H. Bl. 470, and 487.

and the public were not acquainted with it, Dollond was to be considered as the inventor.

The preceding would appear to be the first decision on the meaning of the statute in the case of two rival inventors within the realm; the case of *Edgebury v. Stephens*, *ante*, 35, had decided, that the introducer from foreign parts of an invention within the realm, is the true and first inventor within the meaning of the statute, and this case decides that publication is essential to the acquiring that character; that user in private, without some publication, will not defeat the claim of a subsequent independent inventor and publisher of his invention under letters patent for the benefit of the public; the question then arises, what user is such a publication as will defeat a patent, and two cases of user present themselves; 1st. By the patentee; 2d. By a stranger.

The words of the statute are, "the working or making of any manner of new manufactures, which others, at the time of making such letters patent and grant, shall not use;" the words of the letters patent are, "new invention as to the public use and exercise thereof." See *post* 53, *n. a.*

In *Bramah v. Hardcastle* it appeared that the plaintiff had made two or three of his patent machines before his patent, but it was admitted, that circumstance would not of itself avoid the grant. *Holroyd*, 81.

In *Wood & others v. Zimmer & others*, 1 *Holt*, N. P. C., *post* 82, the patentee had sold the article in the public market four months before the date of the patent. Such sale was evidence of the invention having been used and exercised for the purposes of commerce, and not simply for the purpose of experiment, before the date of the letters patent; such use and exercise, and the subsequent obtaining a patent, are contrary to the whole spirit of the patent laws, which require a disclosure for the benefit of the public, whereas the secret might be lost to the public by such a course of proceeding; and further, the patentee might thus have a monopoly for a much longer period than 14 years, were he allowed to practise the invention in secret until there was danger of its being discovered, or some other circumstances induced him to take out a patent. *Post* 45, *n. b.*

In *Morgan v. Seaward*, one pair of wheels had been made in secret in this country, sold and sent abroad prior to the date of the patent; held, that this was not such a publication as would defeat the patent. 2 M. & W. 559, and *post*.

The true construction to be placed on the above words of the statute and of the letters patent, in respect of the question, what is such a user as will vitiate the letters patent of a subsequent and independent inventor, is involved in great difficulty. It has been said that a use in any sense which could be called public, as contrasted with a use in private, will vitiate the grant; but such a use may be the result of accident, and in perfect ignorance of the character or construction of the thing so used. Such user may co-exist with total ignorance of the working or making of the said manufacture.

One true test it is conceived is, whether the

manufacture for the purposes of commerce has been used by others. Suppose the country to have been entirely supplied with any particular article from abroad, and a person introduces the manufacture of that article as a branch of trade and commerce into the realm, under letters patent. Would these be rendered void by reason of such previous use of the same article imported from abroad? See the small patents, *ante*, 9—14, and acts for patents, *ante*.

This difficult question was thus left to the jury by Sir N. Tindal, C. J.: "It will be for the jury to say, whether the invention was or was not in public use and operation at the time the patent was granted. There are certain limits to this question. A man may make experiments in his own closet; if he never communicates these experiments to the world, and lays them by, and another person has made the same experiments, and, being satisfied, takes a patent, it would be no answer to say that another person had made the same experiments: there may be several rivals starting at the same time; the first who comes and takes a patent, it not being generally known to the public, that man has a right to clothe himself with the authority of the patent, and enjoys the benefit of it. If the evidence, when properly considered, classes itself under the description of experiment only, that would be no answer. On the other hand, the use of an article might be so general as to be almost universal; then you can hardly suppose any body would take a patent. Between these two limits most cases will range themselves, and it must be for the jury to say, whether the evidence convinces their understanding that the subject of the patent was in public use and operation at the time when the patent was granted." *Cornish v. Keene*.

And again, in delivering the judgment of the court on the point of the verdict being against evidence. "The question whether the various instances brought forward amounted to proof that before or at the time of taking out the patent the manufacture was in public use in England, or whether it fell short of that point, and proved only that experiments had been made in various quarters and had been afterwards abandoned, being a question from its nature of considerable delicacy, and in which a slight alteration in the effect of the evidence will establish either the one proposition or the other, the only proper way of deciding it is by leaving it to the jury. And if a jury hear the evidence patiently, and appear to apply it with intelligence, the verdict will not be disturbed." *Cornish v. Keene*, 2 *Hodg.* 294; and 3 *Bing.* N. C. 588.

If an account of an invention be contained in any published book in general circulation, the presumption is that the patentee learnt it from such source, and in that case he would not be the true and first inventor. On the subject of this note, see the following cases; *Liardet v. Johnson*, *post* 53; *Jones v. Pearce*; *Galloway v. Bleaden*; *Bickford v. Shewes*; *Minter v. Mower*; and *Carpenter v. Smith*.

ROEBUCK and GARBETT (*Appellants*).

WILLIAM STIRLING & SON (*Respondents*).

[In the House of Lords, 27 May, 1774 (a).]

Letters patent under the great seal of Scotland, 11 June 1771, *Title.*
to John Roebuck and S. E. Garbett, for "the means of obtaining an acid spirit from sulphur and saltpetre in vessels of lead, and likewise of purifying the same also in vessels of lead."

The specification enrolled by Roebuck [described the method *Specification.*
of making acid spirit by burning sulphur and saltpetre, and collecting the condensed fumes, and stated the "material discovery to be the use of leaden vessels instead of vessels of glass, in all or any part of the process."

The appellants, in their case, stated the uses of the article and the usual methods of preparing it; first, by burning sulphur and collecting the fumes by a bell glass held over, by which the fumes were condensed; secondly, by distillation, in strong glass retorts, over a strong fire; thirdly, by burning sulphur and saltpetre in close glass vessels; fourthly, by burning these materials, and collecting, rectifying and purifying the spirit in vessels of lead, which was the subject of the above patent; that by this invention the price of the articles was reduced 30 per cent. immediately. That they carried on the manufacture in secret, but on discovering that others were learning the art by decoying their servants, they applied for and obtained the above patent (b).

In January 1772, after the respondents had made considerable progress in erecting buildings, the appellants applied, by bill of suspension, to the court of session, praying an injunction to stop the respondents from proceeding with the building. After sundry proceedings, the bill was passed for stopping the works; and the case being remitted to the Lord Justice Clerk to be discussed, the respondents stated the following objections:

1. That the substitution of lead in place of glass vessels was no new discovery, being only a small variation in the method of conducting the manufacture. 2. That it could be no new discovery at the time of granting the patent, because the appellants had carried on the manufacture in that method for 20 years preceding the date of the patent. 3. That at the time the patent was granted, this method of manufacturing oil or spirit of vitriol in vessels of lead was known, and practised by various other persons both in England and Scotland. 4. That the appellants had not given such a description of their invention as

(a) See appeal case, House of Lords, folio 4; also, short account of the case, 5 Brown's Supp. to Dict. of Decisions, 522.

(b) The user by the patentee under the circumstances here stated, is clear ground of invalidity. See ante 44, n.

was required by the patent, and that it was signed by Roebuck only, and not by both the appellants.

Answers.

The appellants answered; 1. That a new mode of manufacture, beneficial to the public, entitled the inventor to an exclusive privilege for the mode, leaving the other known modes free to every person. 2. That they were the original and first inventors of the use of lead vessels in the place of glass, and had made the discovery by degrees, after many tedious experiments, and were in possession of the same for many years before the date of the letters patent. 3. That before the date of the patent the invention was not publicly practised, either in England or Scotland, and that a public exercise must be proved to vitiate the patent. That it is not sufficient to say private experiments have been made, or that persons, by corrupting appellants' servants, were attempting to practise it. 4. That the description was as explicit as the nature of the subject admitted, and that Roebuck had full authority to sign it for himself and Garbett.

Interlocutor.

Evidence of
user in England
admissible.

The Lord Ordinary, after various proceedings, reported the cause to the court, and thereafter, before answer, allowed the respondents to prove *pro ut de jure*, that the making the oil of vitriol from a mixture of sulphur and saltpetre in vessels of lead was, at the time and before the date of the letters patent in favour of the appellants, known to and actually practised by others than the appellants themselves, and granted a commission to examine witnesses in England and Scotland.

Appellants' Arguments.

The proofs being concluded, the parties were ordered to give in memorials on the import thereof. The appellants, in their memorial, observed, that by the treaty of union, England and Scotland are to have the same allowances, encouragements and drawbacks, and to be under the same prohibitions, regulations, and restrictions of trade. That by this law the statute (21 Jac. 1, c. 3) of monopolies is extended to Scotland, and it has consequently been customary since the union to grant patents in Scotland in the same form and to the same effect as in England. That these patents, to be effectual in both parts of the United Kingdom, must pass the seals of each; for a patent under the great seal of England does not extend to Scotland, nor under the great seal of Scotland to England; these countries being in the eye of the law foreign countries in this particular. Whence it appears that the Scotch law relative to patents is the same with the law of England, and must be interpreted by the practice and judgments of the courts there. That the rule adopted in England is, that the person who first used the invention within the realm, whether he is the original inventor or brings the invention from foreign parts, is entitled to a patent, as is decided by the adjudged cases, and by the legislature recognising Lombe's patent (*ante* 38). The law of Scotland considers every place not subject to the jurisdiction of its own courts a foreign country,

and though the law relative to patents be the same in both parts of the United Kingdom, yet in applying it England is considered a foreign country to Scotland. In conformity with the preceding the clause in the letters patent is, that they shall be void, if it shall be found that the subject-matter of them "*quoad ejus publicum in illâ parte dict. regni nostræ Magnæ Brit. Scotiâ vocat. usum et exercitum non esse novam inventionem*," and that they were consequently entitled to their patent, unless the respondents proved, that before the date of the patent the manufacture was publicly practised by others in Scotland; that a private or clandestine manufacture in small quantities would not answer the purpose, because that invention which is kept secret from the public, or is locked up in the breast of the inventor, is, so far as respects the public, no invention at all, and the man who first makes the art or invention public, is alone entitled from the state to the advantages accruing from it.

The appellants also insisted that they were the original and first inventors of the manufacture, in the most strict and literal sense of the term, but that even though the invention had been practised before their patent, in any other country considered a foreign one in the law of Scotland, yet, that if such practice had not extended to Scotland, it could make no alteration in the question.

The questions were, therefore, first, whether the respondents had proved their knowledge and user of the invention before the patent; secondly, whether the modes were known and practised by any other person in Scotland before the patent; or, thirdly, by any person in England.

The respondents, in their memorial, maintained that the whole United Kingdom being subject to the same rules, regulations, and restrictions in matters of trade, if the trade of making oil of vitriol in vessels of lead was free to all men in England, it must in like manner be free to all men in Scotland, notwithstanding the patent granted to the appellants. The respondents also maintained, that the patent was void on the following grounds; first, that the invention was not a subject-matter; secondly, that the appellants had known and practised the invention 14 years before they applied for the patent; thirdly, that the invention was practised by others both in England and Scotland, and was not within the proviso of 21 Jac. 1, c. 3, being no new invention or discovery of any art or manufacture, but only a trifling improvement, without the least variation in the manufacture itself, the spirit or oil of vitriol being the same as before. That if the substance was *in esse* before, a new addition, though making the former more profitable, yet is not a new manufacture in law (*ante* 31, n. p). That this was no new discovery at the date of the patent, the grant whereof is meant as a recompense to the patentee for his invention by giving him an exclusive right for 14 years; consequently, when a person has enjoyed his inven-

Respondents' Arguments.

tion for a longer term than that for which patents are granted, he has no title to demand one. That the patent was void, the invention having been practised both in England and Scotland before the date of the patent.

In answer to the pretence of the appellants, that however invalid the patent might be in England it must be good in Scotland, the respondents relied on the 6th article of the treaty of Union; that the whole United Kingdom being subject to the same prohibitions, restrictions, and regulations, as to trade, and it being indisputable that the making the oil of vitriol is free to all men in England, that trade could not be the subject of a monopoly in Scotland.

Interlocutor.

The cause was then reported by the Lord Ordinary to the whole court, and the following interlocutor pronounced:—In respect it appears from the proofs adduced that the art of making oil of vitriol, from a mixture of sulphur and saltpetre, in vessels of lead, was, at the time and before the date of the letters patent of the appellants, known to and actually practised by different persons in England—therefore the Lords find the letters orderly proceeded and decern.

Judgment of the House of Lords.

May 27, 1774. On appeal to the House of Lords from the preceding, it was ordered and adjudged, That the appeal be dismissed, and that the interlocutors therein complained of be affirmed, for other reasons as well as the reasons specified therein.

The first interlocutor, *ante* 46, allowed the proof of the respective averments before answer; that is, before determining the relevancy and legal effect of the averments; the judgment affirming this, and the subsequent interlocutor, must therefore be considered as an authority, that the averment of the Stirlings, as to the prior public use in England, being proved, was a fact of itself relevant and sufficient in law to find the letters orderly proceeded, that is, in effect, to dissolve the injunction, and that the Stirlings were entitled to carry on the operations referred to.

The meaning of the sixth article of Union, and the authority of the great seal of the two countries, were under consideration in the case of the *Universities of Oxford and Cambridge v. Richardson*, 6 Ves. 689.

The plaintiffs were entitled, under letters patent, to print and sell Bibles, &c. within England, and other persons were entitled to like privileges within Scotland, under the seal of Scotland, and the defendant contended that by virtue of the act of Union, persons authorized to print and sell the said books in Scotland have a right to send the same into England and sell them there, and *vice versa*; that the printing and publishing being legal, the sale at any place could not be restrained; that the consequence of such restriction would be, that books of the kind, purchased in Scotland, even as a part of the library of a person coming into this country, could not be sold here.

On the part of the plaintiffs it was contended, that the argument founded on the 6th article of Union was fallacious, since on the same principle it might be contended, that since the Union a citizen of London might exercise the privileges of

a citizen of Edinburgh, and *vice versa*. That the true meaning of the article is, that the subjects of Scotland shall have the same privileges in England as the subjects of England have, and not that they may do that in England which the subjects of England cannot do. That the patents in both countries are confined to each respectively, as was clearly established by the House of Lords in the case of *Baskett v. Watson*. That notwithstanding the Union, for all the municipal jurisdiction of the great seal, and for all the purposes of acquiring rights under the great seal, the countries are distinct as ever. The right to print would be fruitless if the sale cannot be restrained. The whole exercise of the grant is by way of trade. Exportation to foreign countries is not prohibited, the object being only the sale in England. The instance of the sale of books from a private library does not come within the description of trading, unless it be made use of as a cover.

Lord Eldon, L. C., was clearly of opinion, "that the defendant was acting contrary to law, and must be enjoined; that the license given by the letters patent confines the printing to the limits of the Universities, and the purpose of the power is the sale out of the Universities any where in the King's dominions; but the prior patent to the Scotch printer excludes them, and upon the true construction of all the patents it was not intended that the books they should print within the Universities should be sold in Scotland. The argument of reciprocity, that Scotch books may be sold here and English books in Scotland, assumes the question; for those who contend that books printed in Scotland cannot be sent to England,

admit that books printed in England cannot be sent to Scotland.

"If the right of the defendant can be sustained, it must go to this; that the king's subjects in Ireland have, notwithstanding any patent like this granted to the king's printer in Ireland, a right to introduce into that country books printed by the king's printer in Scotland; and that the king's subjects in Scotland have a similar right to bring into Scotland books printed in England or Ireland by the king's printer. Independent therefore of authority, the proposition asserts a right in the king's subjects to control his grant in a most material and efficacious way. It is familiar, that if a patent for an invention is confined to England, it would not extend to Ireland. If a distinct patent is granted for Ireland, the very circumstance of taking them under the distinct great seals, which are still distinct for that purpose, among others, shows the reason; and time is always required with regard to the day at which the enrolment of one patent is to be made, on account of the purpose to get a patent elsewhere; and it is always understood, that the right in a patent for one country is confined to that, and would not enable the party to bring the article for sale into the other; yet upon all those cases the argument is perplexing, but that is in the nature of the thing. It might be asked, whether the king's subjects could not buy that article in Ireland, and bring it here; and if any one did, whether it might not be sold as part of his effects. To that I do not know an answer. It is enough to say, if it is legal, that circumstance has not stood in the way of this proposition; that you cannot bring those articles here for the purpose of trading. That circumstance belongs rather to the necessity of the habits of life, and has never prevailed against the law, protecting the sole right of the party." 6 Ves. 709.

The points stated in the principal case suggest the following questions:

1. Whether the act of Union makes Scotland part of the realm of England, within the scope and meaning of the statute, 21 Jac. 1, c. 3, as regards patents.

2. Whether it does not appear from the act of Charles, *ante* 33, that the old common law of the two ancient kingdoms of England and Scotland was the same in respect of monopolies.

3. Whether the 6th article of the act of Union has any other meaning than that the people of Scotland shall have the same privileges in England as the people of England have.

4. In what respect the common law prerogative of the crown is limited or affected by the act of union, as to granting patent rights.

5. What is the prerogative of the crown in respect of Scotland, which is said in the old cases to be a dominion belonging not to the crown but to the king of England. See *Craw v. Ramsey*, *Veagh*. 279.

Practice.—With respect to the practice in actions of infringement since the Union, the following case is of importance:—

Morton v. Barclay.

In the Jury Court of Edinburgh, 15 March, 1824, before the Lord Chief Commissioner, Lord Gillies, and Lord Pitmilley.

In this case Thomas Morton, the pursuer, had letters patent for Scotland, dated 18 August, 1818, for his machine for hauling vessels out of the water for repairs and other purposes; he subse-

quently had patents for the other parts of the United Kingdom and the colonies.

The defenders erected a similar machine near Glasgow, and an action being raised in the court of session, denied that the pursuer's machine was an original invention, and also alleged their machine to be different from that of the pursuer. The question was remitted to the Jury Court, but the defendants failed to appear at the trial, which proceeded in their absence, notice of trial having been proved.

The Lord Chief Commissioner made some observations as to the law of Scotland relative to cases of this nature, remarking that the law of England, in similar questions, was perfectly understood. He thought it would be a *desideratum* in the law of Scotland if the point was finally settled.

Mr. Jeffrey said, that since the Union the same practice in regard to patents had been followed in Scotland as in England, and the necessary preliminary steps to give effect to them were similar in both. The law, therefore, appeared to be as well understood as if provided for by statute.

A model of the defender's machine (admitted to be correct) was put in, and the letters patent and enrolment of specification were admitted, and the issues raised were, whether the said machinery described in the said specification, for the purpose of drawing ships out of the water on dry land, was an original invention of the pursuer.

Whether the defenders after the date of the letters patent, and of the said enrolment of the specification, by themselves or others did, without the consent or permission of the pursuer, and in contravention of the privilege granted and protected by the said letters patent, erect machinery at, &c., in imitation of, and which was substantially and in effect the same with the machinery described in the specification, to the loss and damage of the said pursuer.

The evidence having been gone through, the Lord Chief Commissioner in addressing the jury said, "The defenders having made no appearance, seemed to consider their case indefensible, and no case could be more clearly made out. In a question such as this, the practice in England rendered it necessary for the pursuer, first, to make out that the invention was original, and that the invention was his own; and, secondly, that his patent had been invaded. Upon these points it would be a waste of time to say a word after the evidence which had been adduced. It had been proved that the invention was original; that it was useful; that it was preferable to dry docks; and that it would be of the utmost utility in those places where there was not a rise and fall of the tide. Its superior advantages as to the length of time which it allowed to the artisans to carry on their labour, the dryness of the bottom of the vessel, and also the facility of getting in large planks, had been sworn to. The model of the machinery itself was before their eyes; it was new, and the invention altogether original and of great utility. The evidence had been met with no answer, and it was indeed unanswerable. With regard to the law in questions of this nature, he would say nothing: he believed that this was the first case which had been brought to trial upon similar issues. As no proof of actual damage had been led, or of loss sustained by the pursuer in consequence of the infringement, and as his object was principally to establish the originality of his invention, which would be effectually done

by the jury giving small damages, as was the rule in England in similar cases, and it was the rule he understood which had guided the court of session in like questions, he would therefore suggest, if the jury found a verdict for the pursuer, with one shilling damages, that the object which Mr. Morton had in bringing this case to trial would be attained, viz. the establishment of the originality of his invention, and the violation of his right in the patent. A verdict also for the plaintiff, with one shilling damages, would, as a matter of course, carry costs, when that point came under consideration."

Verdict for the pursuer, damages one See *Printed Case*, and 3 Murray's Jur. 398.

There have been several other cases or recently before the courts in Scotland, questions raised in the principal case appear to have been raised till the case of *v. Annandale & others*, before Lord Macken and 15th of May, 1841, in which the aut the principal case was recognised, and of user in England, prior to the date of the held admissible. *Post*.

Stirlings v. Roebuck & G.—Roebuck & G. v. Stirlings.

[5 Brown's Supp. to Dict. of Decisions, 523.]

"This writ (*i. e.* the proceedings in the principal case, *ante*, 48) being ended in this manner, the Messrs. Stirlings, on the one part, brought an action of damages against Messrs. Roebuck & Garbett, on account of the loss they had sustained by having their manufacture stopped for the space of 28 months, by the above illegal and ill-founded opposition; and also for a certain sum as the expenses of that litigation. (In the first process no expenses had been given in the Court of Session, nor costs in the House of Lords.) And to meet this process, Messrs. Roebuck & Garbett brought a counter process of damages against the Stirlings, founded on an allegiance [allegation], that Messrs. Stirlings had, by corrupting their servants, and other unjustifiable and hidden means, stolen their secret from them, and rendered their patent of no effect. Lord Stonefield assoilzied [discharged] the parties mutually from both actions; but, on a reclaiming petition to the Lords [the full court] by Messrs. Stirlings, the Lords at first, 1st February 1776, adhered to the Ordinary's interlocutor; but, on a second bill, 13th June 1776, they altered, and found damages due.

"For, although it be true that suspensions and interdicts are established modes of trying controverted questions, and it does not follow, as matter of course, that every person who applies for an interdict, and afterwards fails in supporting the grounds of that application, is liable to an action of reparation and damages; yet at the same time such action is competent, and, upon special cause shown, damages will be given; especially as in this case, where the Lords seemed to be of opinion that the patent was obtained by obreption and subreption, and that the suspenders ought to have allowed the buildings to have proceeded, and trusted to the caution which was offered at passing the bill by Lord Kaimes, for an after indemnification.

"The conclusion for the costs of the former suit, *quod* costs, was held clearly to be incompetent." 5 Br. Supp. Dict. Dec. 523.

The Messrs. Stirlings could not have any damages for the suspension in the this country, and the English Court of (is consequently very cautious of stoppin sive works by injunction when irreparable may be the result. In the recent case of . patent, Lord Cottenham, L. C., recogn principle in the following terms. "If the is entitled, it would be extremely hard court to do any thing to prevent his ; that which he is entitled to receive, and i tation of which he permitted the defenda on with their works. But on the other would be extremely hard indeed to tell fendants, that they shall not use the wor with the plaintiff's knowledge they have : at a very considerable cost; and as to tell that they may go on with the cold blast is the hot blast, when I am told that the d between the use of the one and of the of expense of nearly double, even if it were that they may sustain that loss in the intil the loss is tried—it seems to me that the works by injunction under these circu is just inverting the purpose for which a tion is used, namely, of preventing misch would be using an injunction for the pr creating mischief; because the plaintiff possibly be injured; all he asks is one per ton; but the prejudice to the de must be very great indeed, if they are p from using at their furnaces that apparati with the consent of the plaintiff, they have The object of the court is to preserve party the benefits he is entitled to, until t tion of right is tried, and that may be secured by the defendants keeping an acc only for the time to come but from the ti the connexion commenced, and undert deal with it in such way as the court may. *Neilson v. Thompson & others.*

See *per* Sir L. Shadwell, V. C., to the ss in *Bickford v. Skewes*. *Post*.

MORRIS'S PATENT.

Title.

Letters patent to John Morris and others, 28 March 1764, for the invention of "an engine or machine on w fixed a set of working needles, which engine or mach fixed to a stocking frame, for the making oilet holes work in silk, thread, cotton, or worsted. as mits, gloves,

aprons, handkerchiefs, and other goods usually manufactured upon stocking frames, by a method entirely new."

The specification referred to a drawing which represented and *Specification.* described a set of working needles.

This invention led, about the year 1770, to a considerable and increasing trade at Nottingham, in weaving mits, handkerchiefs, &c., in open knitted work, by stocking frames, with additional machinery, and several other patents were taken within 15 years after the preceding, and the courts

were often occupied with trials for infringements of them, but they are not reported.

The immediate consequence of this invention was therefore the introduction of a manufacture, new both in the result attained and in the manner of obtaining known results.

MORRIS v. BRANSOM.

H. Vac. A. D. 1776, *Cor.* Lord Mansfield.

[Bull N. P. 76 c.]

The question was, whether an addition to an old stocking frame was the subject of a patent; Lord Mansfield said, If the general question of law, viz. that there can be no patent for an addition, be with defendant, that is open upon the record, he may move in arrest of judgment, but that objection would go to repeal almost every patent that was ever granted. There was a verdict for plaintiff, and £500 damages, which was acquiesced in.

This verdict being acquiesced in, the authority of *Bircot's* case, and the dictum of Sir E. Coke, *ante* 31, n. p., were entirely overruled, and an addition to an existing thing, or improvement in a known trade, has been recognised as the subject-matter of letters patent. See *per Buller, J.*, 2 H. Bl. 469, and *per Gross, J.*, 8 T. R. 104.

The only question in recent cases has been, whether the specification confines the claim to such addition or improvement, so that nothing known before is included.

Nor does it make any difference if the subject-matter is an addition to or an improvement on an existing patent. Lord Eldon, L. C.: "If the petitioners have invented certain improvements upon an engine for which a patent has been granted, and their improvements could not be used without the original engine, at the end of 14 years the petitioners could make use of a patent taken out upon their improvements; though before that period expired, they would have no right to make use of the other's substratum. At the end of that time the public has a choice between the patents. My present opinion is, that the patent must go." *Fox, ex parte*, 1 Ves. & Bea. 67.

The subject-matter of the preceding was a

separate and distinct engine or instrument to be applied to the old stocking frame, and to be used in a certain manner, so as to produce a new manufacture; but many cases occur in which the invention is more conveniently described by considering the old and the new as constituting a new combination of matter, or known elements and instruments. Thus in this particular case the old stocking frame, with its addition, was a new combination and arrangement of parts; similarly, the omission of any part of the old stocking frame would have constituted a new combination, and been a good subject-matter, if it had led to any improvement of the trade.

In *Russell's* case the invention consisted in manufacturing iron tubes for gas and other purposes, by the omission of a maundril, an instrument in use under the preceding patent for this manufacture. *Russell v. Cowley*, 1 Cr. M. & R. 864.

The test applicable to this and all cases is, in the words of *Buller, J.*, as follows: "If there be any thing material and new, which is an improvement of the trade, that will be sufficient to support a patent." *R. v. Arkwright*. *Post* 71, n. s.

LIARDET'S PATENT.

Title. Letters patent, 3 April, 13 G. 3, A. D. 1773, to John Liardet, for "a certain composition or cement."

16 G. 3, c. 29.

Act A. D. 1776. *An Act for vesting in John Liardet, his, &c., the sole use and property of a certain composition or cement of his invention throughout his Majesty's kingdom of Great Britain for a limited time.*

Recompense to the inventor and advantage to the public.

After reciting the grant of the letters patent, and further reciting, "unless the term granted by the said letters patent be prolonged, and the property of the said John Liardet in the said invention better secured, not only within that part of Great Britain called England, the dominion of Wales, the town of Berwick upon Tweed, and in his Majesty's colonies and plantations abroad, but also within that part of Great Britain called Scotland, it will neither be possible for the said John Liardet to receive an adequate recompense for his labour, expense and time, nor for the public at large to reap the various advantages in point of utility and economy, as well as ornament in building, which would arise from this invention were its use universally diffused, and its price lowered, upon which the demand, and consequently the profits of the proprietor, must depend: And whereas the cement from its nature grows too hard for use if not used soon after it is made, and therefore must be made where used, or near it, from which circumstance the use thereof has hitherto been confined to the metropolis and a few miles about it, as training workmen and erecting works is difficult and expensive: And whereas, if the term is not enlarged, the same narrow plan must be continued, a general plan of erecting works and training men all over the kingdom, which is necessary if the use of the cement is to be universal, cannot upon so short a prospect be undertaken, the circle cannot be enlarged, and the price must continue such as may indemnify the proprietor for his expense, out of the profits arising from a very small consumption only during his present term; to the end therefore that the said John Liardet may be enabled and encouraged to prosecute and complete his said invention, so that the public may reap all the advantages to be derived therefrom in their fullest extent," it is enacted, that the said letters patent should be vested in the said Liardet, his, &c., for 18 years from the passing of the act.

That price shall not exceed a certain amount.

S. 2. And whereas the said John Liardet has hitherto furnished the said cement at the rate of sixpence per foot square on

the surfaces of all plain buildings, and twopence per foot running measure for arrises; to the end therefore that the public may be assured of the advantage of this invention at the same price, be it further enacted, by the authority aforesaid, that it shall not be lawful for the said John Liardet, his, &c., during the continuance of this act, to ask, demand, or take any greater price than sixpence by the foot square, and twopence per foot as aforesaid for arrises, so covering any plain work with the aforesaid cement or composition.

3. Proviso, that the act shall not hinder the making any composition or cement not the invention or application of the said Liardet, or which has been publicly used or exercised before the date of the letters patent; but that all such not the invention of the said Liardet, or not particularly ascertained and described in the specification thereafter mentioned, should remain to the public or inventor as if the said act had not been made. The use of the composition not to be hindered.

4. That every objection which might have been made to the said cement, not being a new invention within the true intent and meaning of an act of the 21st of James the First, may be made in bar to any action brought by virtue or in consequence of this act. Objections to patent saved.

5. Proviso against transfer to more than five persons.

6. Proviso that Liardet shall enrol a specification within four months after the passing of the act.

LIARDET v. JOHNSON.

Hil. V. 1778, *Cor.* Lord Mansfield.

[Bull N. P. 76.]

The general questions on patents are, 1st. Whether the invention were known and in use before the patent (*a*): 2d. Whether the specification is sufficient to enable others to make it up; and the meaning of the specification is, that others may be taught to do the thing for which the patent is granted, and if the specification is false the patent is void, for the meaning of the specification is, that after the term the public shall have the benefit of the discovery (*b*). The questions are of knowledge and user, and sufficiency of the specification to teach the public.

In a patent for trusses for ruptures, the patentee omitted what was very material for tempering steel, which was rubbing it with tallow, and for want of that Lord Mansfield held it void (*c*). Omission of any material part of the process a fatal defect.

(*a*) Here, as in *Dollond's case*, ante 43, the user of the invention before the date of the patent is recognised as a necessary part of the ground for avoiding a patent for want of novelty. There are two distinct questions to be considered in most cases of this kind, the one whether the grantee is

the true and first inventor, the other, whether the invention is new. See post, *Jones v. Pearce*, and notes.

(*b*) See further as to this on next page, note *c*.

(*c*) See this case cited and much relied on, post, by *Alderson, B.*, in *Morgan v. Seaward*.

Invention may be the result of accident or design.

Inventions are of various kinds; some depend on the of figuring, others on mechanism, &c.; others depend reason, no theory, but a lucky discovery; water tabbies discovered by a man's spitting on the floor (d). This in the nature of the thing, depend on experiments, and those depend on the proportions of the things used in the combination. (e)

(d) See this cited and referred to by *Buller, J.* in *Boulton & Watt v. Bull*, 2 H. Bl. 487.

Also in argument by J. Bell, Q. C. It was not necessary to show that an invention was the result of long application or deep skill. He remembered that, many years ago, ladies wore flowered tabbies. The method of working the flower was discovered by mere accident; a man having spat upon the floor, placed his hot iron on it, and observed that it spread out into a kind of flower. He afterwards tried the experiment upon linen, and found it produced the same effect. He then obtained a patent, and lived to make a considerable fortune. 29 Rep. Arts, 2d Ser. 311.

(e) The following account of this case is given by Mr. Bramah in his letter to Chief Justice Eyre (p. 70): Lord Mansfield said, "The law relative to patents requires, as a price the individual should pay the people for his monopoly, that he should enrol, to the very best of his knowledge and judgment, the fullest and most sufficient description of all the particulars on which the effect depended, that he was at the time able to do. And it was further remarked by the defendant's advocate, and to which his lordship assented, that even more was required in some instances; for as the patent was secured to the patentee four months before he was obliged to enrol his specification, this allowance was purely for the purpose of giving the inventor the full opportunity of making experiments for his information; and also, that he might have an opportunity of calling in to his assistance the knowledge of others, on points where either his learning or his practice fell short, in enabling him to complete his specification in a style and

manner the most explanatory and complete possible. And he further agreed, as near recollect, that no omission or defect in the patent could admit of an apology, while the power of the patentee to have avoided the means above mentioned, no more than be sufficient for the author of an ungracious publication to attribute it to a want of skill while surrounded with scholastic abilities of such a job. My Lord Mansfield agreed that this was what he understood to be the duty of patents, and cited an instance where there was in the specification such an omission as it had been fatal to the patent had it ever been considered in a court of law.

"This instance was the patent granted to James for fever powders, in the specification which he has mentioned the articles only these powders are composed, and of their proportion or quantity. This being the case continued his lordship, Dr. James never drew any action for infringement, and it was wise in him not to do so, as no patent could be supported on such a specification. For, said his lordship, I think more depends in the composition of medicine on the proportion of the drugs; their quality; as we find it a fact too, that what even preserves life, taken in quantity will in some cases instantly destroy it. Mercury, for instance, though used with a general good effect, perhaps, than any other medicine in the *materia medica*, would produce most baleful consequences, applied without due proportion." *Ibid.* 72.

HARTLEY'S PATENT.

Title.

Letters patent to David Hartley, 1 April, 13 G. 3, A. 1 for a "particular method of securing buildings and ships from the calamities of fire."

Specification.

My invention of a particular method of securing buildings and ships against the calamities of fire, is described in the manner following: that is to say, By the application of plates of metal and wire, varnished and unvarnished, to the several openings of buildings and ships, so as to prevent the access of the current of air, securing the several joints by double overlapping, soldering, rivetting, or in any other manner fastening them up, nailing, screwing, sewing, or in any other manner fastening, the said plates of metal, into and about the several parts of buildings and ships, as the case may require.

17 G. 3, c. 6.

An Act for vesting in David Hartley, his, &c. the sole use and property of a certain method by him invented of securing buildings against the calamities of fire, throughout his Majesty's dominions, for a limited time. Act
A.D. 1777.

After reciting the grant of the letters patent, and the enrolment of and setting forth the specification, it further recited, And whereas the said David Hartley hath, with great attention and labour, prosecuted, and is still prosecuting, a variety of experiments in order to perfect the said invention: And whereas the said David Hartley hath employed great sums of money out of his own private fortune, and must necessarily advance still larger sums before the said invention can be completed, and rendered of general public utility, as well by sea as land: And whereas it will not be in the power of the said David Hartley to carry his invention into complete execution, so as to render the same of the highest utility to the public of which it is capable, nor will there be any reasonable prospect to the said David Hartley of being reimbursed the sums of money already by him expended and advanced, and the further sums necessarily to be by him expended and advanced, or of obtaining a proper return and recompense for so important an invention, unless the term granted by the said letters patent be prolonged, and his property in the said invention secured, not only within that part of Great Britain called England, the dominion of Wales, the town of Berwick upon Tweed, and his Majesty's colonies and plantations abroad, but also within that part of Great Britain called Scotland, for such time as may enable him to obtain an adequate recompense for his labour, time, and expense. To the end thereof that the said David Hartley may be enabled and encouraged to prosecute and complete his said invention, so that the public may reap all the advantages to be derived therefrom in their fullest extent, it is enacted that the sole privilege of making and vending the said invention be vested in David Hartley, &c. for thirty-one years from the passing of the act, prohibiting all persons imitating the same without license in the usual terms of the letters patent.

S. 4. That any objection which might have been made to the said invention not being a new invention, within the true intent and meaning of an act of the twenty-first of James the First, sufficient to invalidate letters patent, may be made in bar to any action brought by virtue or in consequence of this act.

The other sections of the act were to the following effect:—S. 2. That the invention might be used in the royal dock-yards without license;

S. 3. privileges not to be transferred to more than five; S. 6. that the price of the fire plates of iron should not exceed sixpence per square foot.

The subject-matter of this invention was the application of plates of metal for the prevention of fire, and the 4th section saves any objection which may be made to this patent in respect of its not being a new invention within the statute of James. Doubts have been entertained as to the validity of this patent, in respect of the subject-matter; whether the invention can be considered any manner of manufacture; whether it is not a mere abstract principle, an unembodied method, or something which does not satisfy the words or spirit of the statute. But the words of the statute, "any manner of manufacture," are to be taken in connexion with the preceding words "working or making," and mean either the result attained, or the method of obtaining the result. See *ante* 43, n.

The subject-matter of this patent was maturely

considered by Eyre, C. J., in his judgment in *Boulton & Watt v. Bull*, 2 H. Bl. 493, and placed in the general class of patents for methods of operating and manufacturing, producing no new substances, and employing no new machinery.

That this patent was valid in respect of its subject-matter may perhaps be rendered clear by the consideration that houses or ships, or parts of houses and ships, were never constructed in this way before; the method published to the world by this patent was, therefore, in the strictest sense, a new manufacture, since it was a new method of arranging matter for that particular purpose of constructing houses and ships. See Forsyth's patent, *post* 97, n.

Hartley had a grant of £2500 from parliament to enable him to ascertain the practicability and utility of his invention.

ARKWRIGHT'S PATENT (a).

Title. Letters patent to Richard Arkwright, 16 December, A. D. 1775, "for certain machines for preparing silk, cotton, flax, and wool, for spinning."

Specification. I, the said Richard Arkwright, do hereby describe and ascertain the nature of my said invention, and declare that the plan thereof, drawn in the margin of these presents, is composed of the following particulars; that is to say:—

For bruising the flax to render the fibres susceptible of division. No. 1, a beater or breaker of seeds, husks, &c., and a finer of the flax, hemp, and other articles which are to be prepared for dressing, in which (a) is a wheel with teeth, which, by acting upon a lever, raises the hammer (c), the lever being moveable upon the centre (d).

For heckling the bruised hemp. No. 2, an iron frame with teeth at (a), working against a lower frame with like teeth at (b); this lower frame is firmly connected to a wooden frame by means of the screws (c, c); the upper teeth are made to act against the lower by means of the joints (d, d, d, d) (b).

The present feeding apparatus. No. 3 is a piece of cloth with wool, flax, hemp, or any other such materials spread thereon, as at (a).

The crank for stripping off the cotton in a spinner. No. 4 is a crank and a frame of iron with teeth at (a), being moveable at the joints (b, b, b, b,) by means of a crank, and by

(a) This is Arkwright's second patent; his first patent, July 3, 1769, for the spinning machinery, was comparatively of small service until the subsequent invention of the preparing machinery, the subject of the present patent. See *per* Mr. Faray, App. to Parl. Rep. on Patents; also, *Rees's Cyclopædia*, Arts. Cotton and Manufactures; also the works of Dr. Ure and Mr. Baines, on the Cotton Manufacture.

For a plate of the drawings referred to in the specification, see the folio report of the trial *R. v. Arkwright*, and Collier on Patents.

(b) No. 1 is for beating and bruising hemp, to split the fibres, and render them susceptible of divisions; No. 2 is for heckling the bruised hemp; they relate only to the preparation of hemp and flax.

a cord turning the pulley or wheel (c); this motion of the teeth (a) works them backwards and forwards upon the cylinder No. 5, and dischargeth the cotton, wool, &c., from it at (d).

No. 5 is the last-mentioned cylinder, which hath fillet cards: *The doffer cylinder.* behind this cylinder, No. 3 delivers its contents upon another cylinder (c).

No. 6 consists of rollers fixed to a wooden frame, the contents *The rollers for drawing and roving.* of No. 5 being brought to it at (a), and going through at (b), produceth it a proper size (f); (c, c) are brushes for cleaning the machine.

No. 7, a cylindrical box for twisting the contents of No. 6 *The revolving can machinery.* at (b); (a, a) are two rollers, one moving the other, between which the contents of No. 6 passeth into the cylinder (b); (c) is a dead pulley fixed to the frame; (d) a cord which, passing from the pulley (c), moves the rollers (a, a); (F) a wheel, the movement of which is brought from (F c) No. 10, and is fixed to No. 6 (d).

No. 8, a machine for twisting the contents of No. 6, in *The twisting machinery.* which (d, d) is a frame of iron; (b) a roller, on which a bobbin, (c) is fixed; this is turned the same as No. 7, that is, by a dead pulley, or wheel fixed to a wooden frame, at (g) (e).

No. 9, a spindle and flyer, being fixed to No. 6, for twisting the contents from (b) in No. 6; (d) is a pulley under the bobbin, which hath a communication by a band to No. 10 at (d, d), it being a conical or regulating wheel, which moves the bobbin quicker or slower as required (f). *The bobbins of the roving machines.*

No. 10, a spindle, which being fixed to No. 6 at (a) worketh *The pulley work of the roving machines.* No. 7, No. 8, or No. 9, at (F, F, F), by the pulley (F, c); (d), a regulator for No. 9; (b), a socket, having a bolt going through (d, d) and (F, c) to (G), stops or sets the whole going by means of a catch (a), for the pulley (G, G) being loose upon the spindle, (o) a lever, moveable about (k), raiseth or falleth the bolt (b) (g).

In witness, &c.

(c) No. 3 is for feeding cotton to the first cylinder of a carding machine; No. 2 is the comb moved by cranks for stripping off the cotton from the last or doffer cylinder of a carding machine in continuous or perpetual alivers; No. 5 is the last or doffer cylinder of the carding machine, adapted to deliver the cotton (by aid of the comb) in perpetual comb. These three elements are parts of the carding machine in present and general use.

(d) No. 6 and No. 10 constitute the roving can machinery; the former are the drawing rollers of a roving frame in general use as well for drawing as for roving; the latter is the revolving can of a roving frame, and also came into general use, but without the rollers (a a); it is now, however, superseded by improved forms of Nos. 9 and 10.

(e) This is a substitute for No. 7, the twisting part of a roving machine. It is another mode of doing the same as the revolving can, and was called 'Jack in a box.' It was adopted by some, and improved forms of it have been the subject of several subsequent patents, but without coming into use; the improved forms of Nos. 9 and 10 being preferable.

(f) This is the origin of the modern bobbin and fly, or cone roving machine, the improved forms of which are principally due to Mr. Houldsworth, and have superseded all other roving machines.

(g) This is pulley work, which was used with No. 7 for the can roving machine, and it also, in reference to No. 9, contains an imperfect suggestion of the cone frame.

History of the Manufacture.—All yarn was originally spun by hand; and cotton was spun twice over; first the roving or thick thread, with a very slight twist, was formed; then the yarn was formed by spinning the roving over again, by an operation similar to the former, but the thread was drawn out longer and finer, and received more twist. The earliest spinning machines were confined to the latter operation of actual spinning.

In 1738, Louis Paul, a foreigner, had a patent, for "a new invented machine for the spinning of wool and cotton." The specification stated briefly (and rather obscurely), that the sliver of wool or cotton is to be put between a pair of rollers, which being turned round, draws in the sliver; and as it passes regularly through, a succession of other rollers, moving proportionably faster than the first, draw the sliver into any degree of fineness which may be required.

In 1758, Paul had another patent for a spinning machine, which was substantially the same as part of that described in his former specification, having only one pair of rollers, but no succession of pairs of rollers.

In 1769 Richard Arkwright had his first patent for spinning machines, wherein the principle of a succession of pairs of rollers was applied with such completeness of mechanical detail, as rendered it perfectly successful, and he was enabled to make the machinery self-acting, so as to be worked by the power of a water mill without manual labour.

The invention of spinning by rollers, and its successful introduction, furnishes an illustration of the manner in which the same principle may be the subject of successive patents.

In 1738, the mere principle of spinning by rollers was stated by Paul, but no practical method of making yarn was described; and the method he afterwards described in 1758 was not a good one. Thirty years afterwards Arkwright hit on the same idea, and described a complete mode, which succeeded, and has become of the greatest national importance. The principle is the same as was announced at the beginning of Paul's specification of 1738, but which he never practised, and he appears to have lost sight of it in his patent of 1758. Arkwright's invention led to great improvement in the manufacture; his was an engine tending to the furtherance of trade. *Ante* 6.

Cases of this kind, in which the idea or principle of a valuable invention has been announced, and after some ineffectual attempt to carry it into effect has failed, and been abandoned, are of frequent occurrence, and when no beneficial effect is produced on the arts and manufactures of the country by such patent, it may for all practical purposes be considered as a barren suggestion.

In 1748, Paul had a patent for carding machines; he described a cylindrical arrangement of cards, bearing some resemblance to the present carding machine, except that it had no feeder, the wool being put on the cylinder by hand, and the cardings were taken off in short lengths by hand, with a comb, which required the machine to stop, and the short lengths to be joined by hand.

Arkwright appears to have enjoyed the exclusive benefit of his patent of 1769; he established large mills at Cromford, in Derbyshire, for spinning, with his machinery, cotton twist for making stockings; also warp for calico, and made great profit. It is stated in Dr. Rees's Cyclopædia, Art. Cotton, that his patent right was contested about 1772, and that he obtained a verdict. Other mills were established by licence under his patent.

Although the greatest inventor, Arkwright was not the only useful inventor in the series. About 1767 James Hargreaves had invented the spinning jenny, which was a machine to be worked by hand labour, for spinning several yarns by a very similar process to that whereby at a time had been previously spun by hand. Hargreaves' invention was the multiplication of the number of spindles which one person could manage at the same time. Although the jenny was spun by a continuous thread, the operation of the spinning was interrupted every time that about a yard in length of each thread was completed, in order to wind up that yarn.

The jenny came into common use for weaving about the same time that Arkwright was bringing his spinning machinery into use for weaving warp, and the two soon superseded the mode of spinning by hand. Arkwright's machinery was worked by a water wheel and manual labour; and each spinning frame contained several spindles, which were all with cotton by the same rollers, and so many threads at once, but without any motion, as in the old mode and in the jenny up the yarn, for the spinning and winding going on continually.

Hargreaves took a patent for his jenny but as such machines had been common by many during two or three years before date, the patent was considered as invalid, never attempted to be sustained.

The jenny as well as Arkwright's original machinery, was confined to the spinning of rovings, which were previously prepared one roving at a time, from short lengths of cardings joined together, and loosely twisted in length by hand to form a loose thread called a roving, in the same manner ready mentioned to have been originally for preparing rovings for spinning by hand.

During the period of the term of Arkwright's patent of 1769, after he had in his machinery extensively, he turned his attention to invent new machinery for the preparation of wool, and forming it into more perfect than could be made by hand, and more improved spinning by his original machinery; he employed several workmen during a long making new machinery for carding and his mills, before he took out his second patent. In 1775, he used that machinery extensively before the patent, and parts became known to others who were his imitators in the spinning and were adopted by them, and some ideas have been suggested to him by his imitators. He delayed his patent for carding and spinning until after his patent for spinning.

Carding machines with cylinders had been in use, by slow degrees, from Paul's unsuccessful attempts: but although improved, such remained very imperfect.

In 1772, John Lees applied to the carriage an endless revolving cloth, called a petal feeder, upon which the cotton was spread; Arkwright made a further improvement by rolling up the feeder cloth with itself spread upon it, in a spiral roll, which unrolls as the machine is fed. See No. 1 specification.

About 1773, a plate of metal, finely turned to the edge like a comb, and worked up by a crank, with slight but frequent strokes applied for stripping off the cotton from

a doffer cylinder of the carding machine, in a continuous filmy fleece, which, as it came off, was contracted and drawn through a funnel, and was thus gathered into a sliver, which by passing between two rollers, was compressed into a firm fat riband, and fell into a deep can, where it coiled up in a continuous length till the can was filled.

The crank and comb is No. 4 in Arkwright's specification, but to render this available, it was necessary to cover the last, or doffer cylinder, all round its circumference with narrow fillet cards, banded round it circularly like belts, so that the cotton could be brought off in an unbroken fleece. Arkwright actually used a narrow fillet card wound circularly around the cylinder in spiral coils, which mode has been continued to the present time; it appears to have been practised by Wood and Pilkington, a year before the date of Arkwright's patent: but it is doubtful on the evidence whether he or they first invented it.

The cards had been previously fixed on the doffer cylinder in detached portions, which did not run together around its circumference, but left intervals between them; the cardings, therefore, came off in detached portions, or short lengths, as much as the width across the cylinder, and these lengths required joining by hand, a mode which is still in general use for carding wool for making woollen cloth.

By these improvements, the carding machine was perfected. The cotton wool as fed to it is an entangled knotted mass, with the fibres lying in every direction; but comes out compressed into a uniform and continuous carding or sliver. The introduction of these improvements into practical operation is to be ascribed to Arkwright, and he showed his usual talent and judgment in combination, by putting all the improvements together and producing a complete machine, so admirably calculated for the purpose, that it has scarcely been improved upon to the present day.

Arkwright's specification describes the various elements, Nos. 3, 4, and 5, of this carding machine, but furnishes no information as to the manner in which the parts are to be put together. The specification does not mention the drawing process to which the perpetual carding or sliver of cotton is subjected after the carding, for the purpose of straightening the fibres. And the next process of roving is not clearly explained.

The rollers of the drawing and roving frames are No. 6 in the specification, and are successive pairs of rollers, the same as those of the spinning frame in his patent of 1769; by the action of such rollers, the perpetual carding or sliver which comes from the carding machine is drawn out in length, and consequently reduced in size, at successive repetitions of the drawing operation, until the sliver becomes so small that it would not hold together without some twist; a slight twist is therefore given in the roving machine, which may be considered as the last of the series of drawing machines, and so forms the cotton into the coarse soft threads called rovings.

Arkwright invented three modes of giving the requisite twist, and gathering up the roving as fast as it is twisted; Nos. 7, 8, and 9.

After Arkwright, about 1775, Samuel Crompton combined the rollers of Arkwright's spinning machinery with the spindles of Hargreaves' jenny, and the combination produced a new machine called the mule, which was at first worked by hand; it soon came into use, particularly for spinning finer yarn for muslin, the rovings for it being prepared by Arkwright's carding, drawing, and roving machinery.

In 1790, Kelly adapted the mule to be worked partly by power of a mill, but still requiring some manual labour; in that state it was made to spin very fine yarn for making lace, such as had never before been produced from cotton. The mule became most extensively used for spinning coarser yarn for weft, such as had been spun by the jenny. That spinning by the jenny was expedited by having the rovings prepared for it, by aid of another machine called the billy, which was derived from the mule and the jenny, soon after the introduction of the mule.

In modern times the mule has wholly superseded the jenny and billy, except that they are still commonly used for spinning wool for making woollen cloth. In 1812, Mr. Crompton was rewarded by parliament with £5000. for his invention of the mule. In 1818, Mr. Eaton had a patent for a self-acting mule, so as to be worked entirely by power of a mill, without any manual labour, and in 1825 and 1830, Richard Roberts had patents for the self-acting mule now in general use, of which an extension has been granted by the Privy Council. *Post.* In 1834, Mr. James Smith had a patent for a self-acting mule on another construction.

ARKWRIGHT v. MORDAUNT.

T. V. A.D. 1781.

In this action for the infringement of the plaintiff's patent, the defendant objected that the specification was obscure, unintelligible, and generally defective and insufficient, and the following specific objections were made: That the specification does not describe in what manner the cotton is to be taken off the feeding cloth No. 3, and how it delivers its contents to the cards of another cylinder; that the cylinder represented at No. 5 was abandoned, and a different one used by Mr. Arkwright;

that the velocity of the different pairs of drawing rollers No. 6 is not specified; that in the model produced in court these rollers were pressed down by weights, whereas the specification gives no directions respecting weights; and also that the said rollers were fluted, whereas those shown in the drawings were plain.

This case is not reported, but see as to it *per* Adair, Serjt. in his opening speech of the subsequent case, as reported in *Davies's Patent Cases*, 41-4.

The plaintiff failed in this action, and eight other actions were abandoned.

The above objections to the specification would hardly be sufficient to invalidate the patent, if the following answers, suggested by the learned counsel in the subsequent trial, had been established in fact. That the manner of taking off the cotton from the feeder No. 3, by means of the feeding rollers of the carding machine in order to give it to the cards being well known, and these feeding rollers being old, and well known to mechanics who had seen the former carding machine, need not be described. That the doffer cylinder shown by No. 5 with belts of fillet card would do, but that the one at present used with a fillet wound spirally around the cylinder was a better mode subsequently discovered. That the drawing, No. 6, showing one pair of the drawing rollers larger

than the others, the velocity of the larger would be greater, and mechanics would thereby know that one pair of the rollers, No. 6, is to draw the cotton faster than the other pair will pass the cotton through them. That it is obvious to any mechanic that the upper rollers of No. 6 must be pressed down on the lower ones, and this may be done in various ways. That the fluting of those rollers, or making them rough, were ways known to every mechanic for making the rollers draw more than the plain ones. *Dav. Pat. C. 41.*

In 1782, Mr. Arkwright printed a case in relation to the preceding, with his reasons in applying to parliament for an act to secure his right, in which he stated that he had purposely omitted giving so full a description in his specification as he otherwise would, lest his invention should be carried into foreign countries. See folio report of *King v. Arkwright*, p. 97.

The application to parliament was not persevered in.

ARKWRIGHT *v.* NIGHTINGALE.

Hil. V. A.D. 1785. *Cor. Ld. Loughborough.*

[*Dav. Pat. C. 37-60.*]

Adair, Serjt. stated the case for the plaintiff;—*Bearcroft* for the defendant, after some of the plaintiff's witnesses had been examined, objected that this appeared to be a new invention, the application of which to an old machine was not described; but the patent was for the invention of "certain machines for preparing the substance for spinning." That the evidence did not apply either to the patent or the declaration, for the new invention would not work alone, but must be applied to the old machine. That this objection was ground of nonsuit.

The description of the invention to be taken from the specification

Lord Loughborough: I have known it overruled. In all the oylet-hole work patents they are additions to the old stocking frame, and they are not so described. I tried one of those causes last term; the objection made at the trial was, that the description was to be taken from the terms of the patent, which were loose and inaccurate. I was of opinion, then, that the description was to be looked for in the specification, the description of what was invented; but upon that I am very confident there was no reference to the old machine.

Some witnesses were then examined, who had made models to produce the intended effect from the specification alone, without any other knowledge of the machine.

Lord *Loughborough*: Will any number of witnesses prove that this machine cannot be made from the specification (a)? Lord *Loughborough* to the jury

Lord LOUGHBOROUGH, before he stated the evidence, took notice of some things that had occurred in the course of the trial, merely for the purpose of laying them aside as foreign to the purpose of the inquiry. There is no matter of favour can enter into consideration in a question of this nature. The law has established the right of patents for new inventions; that law is extremely wise and just. One of the requirements is, that a specification shall be enrolled, stating the nature of the invention; the object of which is, that after the term is expired the public shall have the benefit of the invention; but without that condition is complied with, the patentee forfeits all the benefit he derives from the great seal. Letters patent not a matter of favour.

It has been said, that many persons have acted upon an idea that Mr. Arkwright had no right, he having failed to establish it when this cause underwent an examination in another place, in which the event was unfavourable to him. If the question at present were what damages Mr. Arkwright should have received for the invading that right, I would have allowed the parties to have gone into evidence to show to what extent persons have acted upon the faith of the former verdict; but the question now is upon the mere right, and if the result of this cause is in favour of the plaintiff, the verdict will be with one shilling damages. A future invasion of this right would entitle Mr. Arkwright to an action for damages, but in the present case they are not asked. Acts done in reliance on former verdict, evidence in reduction of damages.

It is said to be highly expedient for the public that this patent, having been so long in public use after Mr. Arkwright had failed in that trial, should continue to be open; but nothing could be more essentially mischievous than that questions of property between A. and B. should ever be permitted to be decided upon considerations of public convenience or expediency. The only question that can be agitated here is, which of the two parties in law or justice ought to recover?

There are many objections that may be taken to patents; but the only objection in this case is, that the specification is not so intelligible that those who are conversant in the subject are capable of understanding it, and of perpetuating the invention when the term of the patent is expired. The clearness of the specification must be according to the subject-matter of it; it is addressed to persons in the profession having skill in the subject, not to men of ignorance; and if it is understood by those The specification addressed to persons of skill in the subject-matter.

(a) For a report of the speeches of counsel, &c. see *Dev. Pat. C.* 37-54.

Beareft, in addressing the jury for the defence, commented on the fact of Arkwright's acquiescence for more than three years in the result of the pre-

ceding trial, as raising a strong presumption against the patent; and also on the admission made by Arkwright in his case (*ante* 60, n.), of his intention partially to conceal the invention.

Lord Loughborough to the jury whose business leads them to be conversant in such subjects, it is intelligible.

The first witness described the machine in use before plaintiff's patent was obtained, which was simply applied to the purpose of carding; all beyond that purpose, that is contained in Mr. Arkwright's invention, I take to be perfectly new.

The next witness was the person applied to by Mr. Arkwright, to draw up for him a description of his machines to be inserted in his specification. He says positively, that the instructions given to him were not to conceal, but to make the description plain; and Mr. Arkwright relied upon his skill and capacity for making that plain which Mr. Arkwright had communicated to him in the best manner he could.

The learned judge then stated the evidence of four witnesses who had given their opinions upon theory, upon observation, and as men of skill and mechanical knowledge; that the specification was sufficient to convey clear ideas to their minds, from whence they could direct the making of the machine.

Mr. Wise says, he did actually make a machine from the specification, without any previous knowledge of the old machine, except a cursory view.

Thomas Wood says, he never saw the plaintiff's works till last September. That about the time the patent came out he got a copy of the specification from the office, and from that copy actually made the machine; and from the specification only applied the parts to the old carding frame; and that for three or four years they have been constantly in use. He says, fluted rollers were not new, they had been used by him years ago.

William Allen made a model of the machine from the specification. He had never seen a carding machine, but it was described to him by the person who brought him the specification.

William Whitford, after considering the specification about an hour, undertook to make the machine. The old carding machine was described to him, and he also made the machine.

Both these witnesses said the conversation was perfectly fair, and that they were not led by any thing said to them.

This is the evidence on the part of the plaintiff, and that evidence, to be sure, affords a very strong body of proof; for the question being, whether the specification is intelligible or not, the man who drew the specification says, he was desired to make it as plain as he could; and he swears that, to the best of his judgment, he did endeavour to make it plain; that is so far as to the fairness of the instruction. Then he and three other persons of skill swear, that it is so intelligible to their apprehensions, as to convey to them a clear idea of the manner of making the machine. Then five persons swear that they constructed this machine from the specification alone; and one of

them, divers years ago, clearly from the specification alone, made the very machine to produce the very effect, and had it in work, producing the very effect produced by Mr. Arkwright. Lord Loughborough to the jury

The comment upon this by the defendant's counsel is, that these were trials made by the plaintiff's desire, which should have been made with more caution; the persons should have been talked to before witnesses, but I cannot conceive that any evidence would have added force to the testimony that is given. Supposing Mr. Arkwright, in making these trials, to have made them in such a manner as to evade all suspicion, with the best precautions that the ingenuity of man could suggest, still nothing more could be attended to than the positive testimony of the persons who gave the description, and who received it. Now they swear that no other person gave them information, and the person who gave the information swears he gave them none but fair information; and one witness swears he had no information at all, but took it upon himself, taking a copy of the specification and using it.

Mr. *Bearcroft*, for the defendant, has called witnesses, many of them of undoubted character and skill, who say, that from the specification they should not be able to make the machine; and most of them have said, that they think it not probable that the person who drew the specification meant to describe the invention. Now that is nothing more than a corollary from their own opinion, because it is not intelligible to them.

The last witness is the attorney's clerk, who prepared the formal part of the specification, and engrossed the whole of it, and I think his evidence does not amount to a great deal. He says, that when he observed to Mr. Arkwright that the specification was not so clearly drawn as he thought it might be, Mr. Arkwright's answer was, that it was not lately usual to make the specification too plain, lest the invention should be carried abroad, and seemed to regret that the specification was not locked up for fourteen years, as a matter of public convenience; but he added, he believed it would be sufficient for the security of his patent.

A good deal was said in the opening of the defendant's case, that Mr. Arkwright meant to understate his description, so as to keep the world in ignorance of his invention; and that, though he might do it to keep it from the French, yet that he had overshot himself, and had kept it from the subjects of this country; that he had not complied with the grant, and must stand to the consequence. Now, unless a great degree of folly indeed is ascribed to Mr. Arkwright, you cannot apply that idea to his mind. He must necessarily put people in possession of it; and it is plain, by the conversation he held with the attorney's clerk, that he thought the specification was sufficient,

Lord *Loughborough* according to the terms of his patent, that he should make his invention sufficiently known.

Having stated the whole of the evidence, I cannot conclude without saying, that this case turns upon a very short point; there is no matter of argument in it; it is simply, whether you believe five witnesses who have sworn to a positive fact; for if their testimony does not obtain effect with you, it can only be on supposition that they are every one of them perjured; because the reasoning is only this—that that which five men have done is possible to be done. Therefore, the only question for your consideration is, whether these five men have made the machine? Each of them come and positively swear they have done it; and if they have not done it from such information as they state themselves to have received, they are each of them perjured.

Therefore the single question is, whether you believe these five persons are perjured, or that they speak the truth? According as you are of opinion, one way or the other, you will find your verdict for the plaintiff or for the defendant.

Verdict for the plaintiff.

THE KING v. ARKWRIGHT.

Cor. Buller, C. J. 25 June, 1785.

[Printed case.—Fol. Lon. 1785.]

Proceedings by scire facias.

This was a *scire facias* (a) to repeal the patent, and the writ, after reciting the grant of the letters patent, farther recites, among other things (b): “And whereas we are given to understand, that our said grant is prejudicial and inconvenient to our subjects in general (c), and that the said invention, at the time of granting our said letters patent, was not a new invention, as to the public use and exercise thereof, within, &c.; and that the same was not invented and found out by the said Richard Arkwright. And that although the said Richard Arkwright did cause a certain instrument in writing, under his hand and seal, together with a plan thereof (a copy of which is hereunto annexed), to be enrolled in our High Court of Chancery within four calendar months next and immediately after the date of our said letters patent, pretending particularly to describe and ascertain the nature of his said invention, and in what manner the

(a) These proceedings originate in the Petty Bag Office, and the first step is to give instructions for the draft of the writ, which, having been settled by the counsel for the prosecution, is to be taken to the Attorney General, who thereupon grants his fiat, upon the prosecutor and two sureties entering into a bond of £1000, conditioned to pay the defendant his costs, taxed as between attorney and client, and treble costs in case the defendant

should be entitled to them under the statute (5 & 6 W. 4, c. 83, s. 3), if a verdict be given against the crown. See *Law & Practice, Ind. tit. Scire Facias*.

(b) The record is given *verbatim* in the printed report of the trial.

(c) The learned judge held, that the particular facts should have been stated, and refused to receive any evidence under this issue. *Printed case 30*.

same was to be performed, in the words following, that is to say (setting forth the specification). Yet that the said Richard Arkwright hath not, in and by the said instrument in writing so by him enrolled in our High Court of Chancery, or by any other instrument in writing under his hand and seal, enrolled in our High Court of Chancery, particularly described and ascertained the nature of his said invention, and in what manner the same is to be performed; but hath wholly neglected so to do, contrary to the form and effect of the said letters patent; by means of which premises the said letters patent, so as aforesaid granted to the said Richard Arkwright, are and ought to be void and of no force or effect in law. The writ then calls on the said Richard Arkwright to show cause why the said letters patent, and the enrolment of the same, for the reasons aforesaid, ought not to be cancelled, vacated, and disallowed, and restored into Chancery to be cancelled.

The defendant pleaded, 1st, That the said letters patent, and *Pleas.* the enrolment of the same, by reason of any thing in the said writ of *scire facias* alleged, ought not to be cancelled, vacated, and disallowed, and the said letters patent restored unto his said Majesty's Chancery, there to be cancelled; for that the said grant is not prejudicial and inconvenient to the subjects of our said lord the king in general, as by the said writ of *scire facias* is supposed. 2. That the said invention at the time of the granting of the said letters patent, was a new invention as to the public use and exercise thereof. 3. That the said invention was invented and found out by him, the said Richard Arkwright. 4. That he hath, in and by the said instrument in writing, particularly described and ascertained the nature of his said invention, and in what manner the same is to be performed. Issue having been joined on these traverses, Bearcroft appeared for the crown, and Adair, Serjt., for the defendant. The following are the most important portions of the learned judge's summing up.

BULLER, J.: Gentlemen of the jury, this is a *scire facias*, [Printed Case, 171.] brought to repeal a patent granted to the defendant for the sole use of instruments or machines which he represented to his majesty that he had invented, and which would be of great utility to the public in preparing silk, cotton, flax and wool for spinning; and that these machines are constructed on easy and simple principles, very different from any that had ever yet been contrived: that he was the first and sole inventor thereof, and that the same had never been practised by any other person whatsoever. It was upon this representation made by the defendant, that he obtained the patent now in question. The questions for your decision are three: First, whether this invention is new? Secondly, if it be new, whether it was invented by the defendant?

And, thirdly, whether the invention is sufficiently described by the specification?

The specification intended to teach the public; must fully disclose the secret, and contain nothing materially false or defective.

It seems to me the last is the question of the greatest importance: because, if you should be of opinion upon that question that the specification is not certain enough, it may have the effect of inducing people who apply for patents in future times to be more explicit in their specifications, and, consequently, the public will derive a great benefit from it: and, therefore, I will state to you the evidence upon that point first, and will endeavour to state it separately from all the evidence which is applicable to the other points of the cause. Upon this point it is clearly settled at law, that a man to entitle himself to the benefit of a patent for a monopoly, must disclose his secret and specify his invention in such a way that others may be taught by it to do the thing for which the patent is granted, for the end and meaning of the specification is, to teach the public, after the term for which the patent is granted, what the art is, and it must put the public in possession of the secret in as ample and beneficial a way as the patentee himself uses it. This I take to be clear law, as far as it respects the specification; for the patent is the reward, which, under the act of parliament, is held out for a discovery; and, therefore, unless the discovery be true and fair, the patent is void. If the specification, in any part of it, be materially false or defective, the patent is against law, and cannot be supported.

General test of sufficiency for mechanics or persons acquainted with the subject, how limited.

It has been truly said by the counsel, that if the specification be such that mechanical men of common understanding can comprehend it, to make a machine by it, it is sufficient; but then it must be such that the mechanics may be able to make the machine by following the directions of the specification, without any new inventions or additions of their own. The question is, whether, upon the evidence, this specification comes within what I have stated to you to be necessary by law, in order to support it (*d*).

Evidence for the Crown.

The prosecutors have attacked it in almost every part. First, the witness says the feeder No. 3 cannot be made from the specification. Another says, rollers were made in 1767; in 1769

(*d*) The principle and limitation here laid down were acted on by the Court of Exchequer in the recent case of *Neilson v. Harford*. The specification of the plaintiff's patent contained a particular passage, which the jury found to be untrue; but they also found that any workman of competent knowledge of the subject would correct the statement. *Parke, B.*: "Nor do we think the point contended for, that if a man acquainted well with the process of heating air were employed, this misstatement would not mislead him, would at all relieve the plaintiff from the difficulty, for this would be to support the specification by a fresh in-

vention and correction by a scientific person, and no authority can be found that in such a case a specification would be good. To be valid, we think it should be such as, if fairly followed out by a competent workman, without invention or addition, would produce the machine for which the patent is taken out; and that such machine, so constructed, must be one beneficial to the public. If, therefore, we had thought, on consideration, that the construction which I put on this clause of the specification was the true one, we should have concluded that the patent was bad." *Post*.

they were the same as this, and those used by the defendant; the one was fluted, and the other covered with leather; first they were fluted wood upon an iron axis; the other was the same, only covered with calves' leather; that he originally made them of a different proportion, and one to move faster than the other.

If there was any alteration that the defendant made that was material, it ought to be stated, but in speaking of that article, the specification is perfectly silent as to the material or the form in which it should be made. Any material alteration must be stated.

A witness, Kay, says, one roller turned faster than the other; and there was a use in this, because it was to draw the cotton finer. In this also the specification is perfectly silent. In the plan one appears to be something smaller than the other, but how much, or what were to be the relative dimensions, or upon what scale they were to be made, the specification says nothing. Crofts, who was employed by the defendant to draw up the specification, told the defendant it was imperfectly done, and would not answer the purpose; defendant said he meant it should operate as a specification, but to be as obscure as the nature of the case would admit.

I begin with this evidence, because it is very material to be considered whether the specification, in any part of it, bears a doubt; because the obscurity of it was pointed out to the defendant before he made it, and he then professed to make it as obscure as he could; his object was to get the benefit from the patent so far as putting money in his own pocket, but as to the benefit the public were to receive, it was to be kept back as far as it could. Immison says, that from the specification he should have made a parallel cylinder, and not a spiral one, but this is the one used by the defendant. As to the rollers, it does not appear from the specification some were to go faster than others; from the specification, without other sources, it is impossible to say how they should be made, as there is no scale or plan to work by. A roller is necessary to the feeder to give regular direction to the work; it will not answer without it. From the knowledge he has now, he should add a roller if he was directed to make the machine. But that does not prove the specification to be sufficient, because if a man from the knowledge he has got from three trials, and seeing people immediately employed about it, is able to make use of it, it is his ideas improve the plan, and not the merit of the specification; if he makes it complete, it is his ingenuity, and not the specification of the inventor. He says as to No. 5, it will not work five minutes together before it will be entirely full of cotton; he is asked, supposing the cotton was to be spread upon the feeder only the breadth of the fillers, would it have that effect? He says it would not do even then.

(The learned judge commented on the evidence of several other witnesses to the imperfection of the specification.)

Specification insufficient if information must be derived from other sources.

Mr. Pilkington says, that Mr. Arkwright gave him some cases which he was to present to the House of Commons, and desired the witness would read them, and promised to send him more by his servant, which he did. Those which were delivered by the defendant seem to me to be material, because they show what the defendant's sense of this business was immediately after the first trial. It has appeared from what has been said upon both sides, and it was so stated in this case, that he was beat upon the first trial upon the subject I am now stating to you, that is, the specification. He admits in that he has not properly specified how the machine was made, and he says he purposely (in prevention of an evil, that foreigners might not get them) omitted to give so full a description of his inventions in the specification attending the last patent as he otherwise would have done. This he admits, and he goes on and states a trial in Westminster Hall in July last, at a large expense, when solely by not describing so fully and accurately the nature of his last complexed machines, as was strictly required by law, a verdict was found against him: he bows with the greatest submission to the court and the verdict against him, and he deprecates the favour of parliament.

The defendant's acquiescence in the former verdict raises a presumption against him. Now in a case where an invention is lucrative to so enormous a degree as you have heard, and where the verdict was given against him upon a particular point, had he not been most thoroughly convinced that the verdict was right, or if he could by any explanation have supported his specification, is it to be conceived for three years and a half he would lie by and totally lose the benefit of his patent? But excepting this application to parliament, which does not go upon the grounds of his patent being good, but abandoning it on account of his own fault, and desiring favour and bounty there, he relinquishes the patent for three years and a half.

Evidence for defendant. [Printed case, 177.] This is the evidence upon the part of the prosecutor against the specification, and it is material to see a little how the defendant's counsel endeavour to support it. Here is a specification that states ten different instruments; it is admitted by them that as to No. 8, it is of no use, and never was made use of by the defendant in his machine. It is also admitted, No. 9 stands exactly in the same situation, as these could not be put into the machine. This is a little extraordinary, for if he meant to make a fair discovery, why load it thus with things that they make no use of, and which are totally unnecessary? That could answer no purpose but to perplex. But, say the counsel, we will show you that there were two machines, and they were two distinct things, for, say they, No. 3, 4, and 5, are the material parts of one machine, and those alone afford all the information necessary. Then, besides that, there is the roving machine, which consists of No. 6, 7 and 10, joined together. If that be the

truth of the case, and there are to be two distinct machines to be made up by parts only of the instrument specified in this plan, let us see whether it is so said in the specification ;—there is not a word of it. It begins with the first, or No. 1, which is a breaker or beater of seeds and husks, and a finer of the flax, hemp, and other articles which are to be prepared for dressing. Then, says the counsel, there was a difference as to those things, because the hammer was proper for the hemp, and not proper for wool ; if there be that difference, it was necessary for the defendant to state it in his specification ; but he has made no distinction ; he has left to those who are to learn his art and secret to use the same machine for every part of it. He has not distinguished between the cotton and the flax ; the specification states that it is proper for every thing. Is it so ? It is admitted it is not. Is there any thing which states that these parts are for two machines, and how they are composed ? That the specification is totally silent about. What is there in the specification that can lead you to say that you must make use of three things for one of the machines and three for the other, and which three for one or the other ? and even if it were so, what is to become of the other four ? If those are of no use but to be thrown in merely to puzzle, I have no difficulty to say upon that ground alone the patent is void, for it is not that fair, full, true discovery which the public have a right to demand from an individual, who, under the sanction of parliament, gets so great a reward as a monopoly for fourteen years together.

However, upon the part of the defendant, they have called several witnesses to show you it is perfectly intelligible, and that they can make the machines from this specification. Wilkinson took his information, or a great deal of it, from the defendant himself, and supposing it true that he or any other person instructed by the defendant, and having seen what he does, can make a machine from the specification, yet that will never support it, unless other people from the specification itself, who have any knowledge in the business, can also do it. That is not the case with this man ; but the last thing he says is also a material thing against the patent, for he says, for different purposes different proportions of the rollers are necessary. How is any man to find that out ? It is not said in the specification it must be different in the one case from the other, and that you are to have different rollers for hemp or for cotton. All this remains to be the subject of a future discovery. Moore says, with due attention to the old machine, and an accurate attention to the specification, I could direct a skilful artificer to make the machine. This is all that a very ingenious sensible man can say of this specification. He has examined the instruments and machine, and seen a great deal of it between the trials, and at last he believes, with all the extreme caution that I have mentioned

If additions be requisite, the specification is insufficient.

to you, that he could direct a skilful artificer to make the machine. He says, that as to No. 3. a piece of cloth with cotton or any other material that was to be carded, rolled up in it, would certainly move much better and more steady with a roller within side, but it would do without it. If wanted, he thinks it would easily occur to a mechanic to put it in, that is, that a sensible man would have understanding enough to supply any defect in this specification; but in this case it proves the specification is insufficient. It will not do of itself, but wants something to be added, it is deficient, and there is nothing in the specification that imports there should be a roller in it.

Now it is admitted by the former witnesses, if there are sections of rollers, there ought to be a scale, and there is no scale, there is nothing in the plan to show the different comparative velocity of the rollers, but there will be a difference, because the one is larger than the other in diameter.

You see how that applies to this part of the evidence. There is nothing, says he, that shows what the difference of velocity should be, that remains for experiment hereafter. Is that the case with the defendant? No, he knew to a certainty what it was. The man that comes to give an account of the invention, says, I had calculated it, and the difference of the velocity was to be as five to one; this is the way I made my rollers; now the defendant has not said a word of that in his specification. In that he has kept back the knowledge he had as to the size of the rollers, and velocity, and it is left to people to find it out as chance may direct.

The insertion of more things than requisite a fatal defect.

Wood put No. 4, 5, 6, and 7, together, and that machine he has worked ever since; he don't recollect that the defendant used any thing else. If that be true, it will blow up the patent at once; he says he believes nobody that ever practised would find any thing necessary upon this paper but the No. 4, 5, 6, and 7; he should look after no others. Now if four things only were necessary instead of ten, the specification does not contain a good account of the invention. As to the can, he made use of it without rollers at the mouth; he thinks it answers just the same without it.

This is the evidence that relates to the specification upon the one side and the other. You see upon the part of the prosecution they have called to you very ingenious men, that seem to be much beyond what are called common mechanics in life; they have all told you it is impossible for them to make the machine according to the specification.

Upon the other hand, several respectable people are called upon the part of the defendant, who say they could do it, but there is this difference in their description; most, if not every one of them, have looked at and seen how the machines were worked by the defendant, and have got their knowledge by other

means, and not from the specification and plan alone; besides, they admit the manner the defendant works it is not consistent with the plan laid down, particularly as to the cylinder, a particular part of the business, for Moore says, this upon the face of it must be taken to be a parallel, whereas that which plainly appears to be used is a spiral; besides, after all this, they have spoken most of them in a very doubtful way, particularly Mr. Moore, who qualified his expression in the way which I have stated to you, and the others qualifying their expressions, saying they think upon the whole they could do it. Suppose it perfectly clear they could with the subsequent knowledge they had acquired, yet if it be true that sensible men that know something of this particular business, and mechanics in general, cannot do it, it is not so described as is sufficient to support this patent. It will be for you to say upon this part of the case whether you are satisfied this specification is such, as, with the plan, it may be made from it or not, taking the old machine into its assistance, which by the bye the specification has not taken notice of as known. If you think it is not sufficiently described, that alone puts a complete end to this cause, and then it will be unnecessary to trouble you with any other.

As to the other points, there are two; first, whether it is a new invention; and, in the next place, whether it was an invention made by the defendant. Now if, in your opinions, it is material to go into these points, I think the law in general is very different on them from what I have stated in the specification, because in the case of an invention many parts of a machine may have been known before, yet if there be any thing material and new which is an improvement of the trade, that will be sufficient to support a patent^(e); but whether it must be for the new addition only, or for the whole machine, would be another question. It seems to me not to be necessary now to state precisely how that would be, because this patent is at-

[Printed case, 182.]

Any thing material and new, and an improvement in the trade, will support a patent.

(e) This dictum of the learned judge seems to present an admirable test of the sufficiency of an invention to support letters patent. The improvement of the particular trade is the principle upon which the policy of such limited monopolies rested, and in many cases the materiality and importance of the change can only be judged of by the effect on the result, which effect is tested by the improvement in the trade in the commercial sense of the term, that is, by the production of the article as good in quality at a cheaper rate, or of a better quality at the same rate, or both these partially combined. Thus the latter words, "improvement of the trade," define and explain the preceding, and the utility of the invention as ascertained by this result becomes, in cases of this kind, the real test. In other cases, as when some particular instrument or machine is the subject of the patent,

the same test is indirectly applicable. This view is suggested by the Court of Exchequer in their elaborate judgment in the case of *Morgan v. Seaward*. Parke, B.: "On a review of the cases, it may be doubted whether the question of utility is any thing more than a compendious mode introduced in comparatively modern times of deciding the question whether the patent be void under the statute of monopolies." 2 M. & W. 563. So that whenever utility is proved to exist in any great degree, sufficiency of invention to support a patent may be presumed; and if such invention be any manner of manufacture, and new, and the specification be sufficient, the letters patent for such invention will be valid in law.

Upon this test the decision in *Brunton's case* was correct, his anchors not being so good as those made in the old way.

tacked upon the ground that there is nothing new ; therefore will go over the articles one by one, and see what is stated upon the different articles which are here mentioned.

No. 1 it is said is not stated by the specification to be joined to any thing else, and therefore it must be taken to be a distinct thing. It is admitted that is not a new discovery, for Emmerson's book was produced, which was printed a third time in the year 1773, and that is precisely the same as this. Lees says he is the inventor of the old feeder ; that he made it in 1772, and in August, 1772, he worked with it, and that it is now commonly used in his country. He has never seen the defendant's use, but the description of the defendant's is the same as his.

This also shows, first of all, that it is no new invention ; secondly, it is not invented by the defendant, for this invention is spoken of as used before the time of the patent ; and in the next place, it is proved to you not to be the invention of the defendant, by the person who actually invented it. It is proved that the crank (No. 4) was invented between thirteen and fourteen years ago by Hargreave, and used publicly in two factories where men came to work. If that be so, that will put an end to this article of the crank. Some of the witnesses have proved them made in great numbers, and used in different factories publicly, and they have proved it by the persons who made them. Upon the part of the defendant, the witnesses never having heard of it may be perfectly true, and yet no contradiction to the evidence for the prosecution. As to No. 5, the filleted cylinder, Wood proves it used long before the defendant's patent ; he confirms what was said by the other witnesses ; and what the other witnesses have said against it is nothing at all to this article ; for here it is proved to be used in both ways, in the manner the defendant has used it now, and likewise being carried quite through.

The alteration must be such as leads to a material improvement.

Now if it was in use both ways, that alone is an answer to it ; if not, there is another question, whether the stripe in it makes a material alteration ? for if it appears, as some of the witnesses say, to do as well without stripes and to answer the same purpose, if you suppose the stripes never to have been used before, that is not such an invention as will support the patent ; upon that ground it is fully answered.

As to No. 6, there is no contradiction to the evidence of Hayes and Kay, that the rollers were made before, and used in the different ways I have stated to you, and that the defendant got the secret from them. Then the 7th article is what they call the can. Holt says, the only difference between the two, the spinning machine and the present roving machine, is, that the latter has a can—and indeed that at one time was admitted by the counsel for the defendant.

If it be so, it brings the case to a short point indeed, for if

nothing else is new, the question is, whether it is material or useful? The witnesses upon the part of the prosecution say it is of no use at all. In the first place, they had that before which answered the same purpose, though not made exactly in the same form; it was open at top, it twisted round and laid the thread precisely in the same form, and had the same effect this has. So if it was new it is of no use, but they say it is not new, for though it was not precisely the same shape, in substance it was the same thing; that is not contradicted. That part also stands without any contradiction upon the part of the defendant, for the defendant's witnesses satisfy themselves with telling you they think it intelligible, and it might do without the roller, though it might not be so effectual as with the roller. It is admitted by several it could do without, that appeared from the experiment made; they showed you by one of the engines, how it did with the roller and how without; and that it was done without just the same as with it. As to 8 and 9, it is admitted those are entirely out of the cause, and may be used, says the counsel for the defendant, instead of No. 7.

If new, the question of materiality and utility arises.

But it is a question whether this is the fair construction of the specification. Suppose it was so, it is perfectly clear the defendant has never used either of them, and some of the witnesses tell you they cannot use them at all. One tells you they cannot be used, and, therefore, it is a little unfortunate they got into this specification, if nothing more was meant than to make a fair discovery of what was useful; but in this manner the description is given. As to No. 10, nothing is said about it for the defendant. First, Mr. Moore said it was not difficult to conceive it; but there is no witness that says at all what the use of it is: so this seems to stand without any evidence at all.

Gentlemen, thus the case stands as to the several component parts of this machine; and if upon them you are satisfied none of them were inventions unknown at the time this patent was granted, or, that they were not invented by the defendant; upon either of these points the prosecutor is entitled to your verdict.

If upon any point you are of opinion with the prosecutor, you will find a verdict for him.

If upon all the points you are of opinion for the defendant, you will find a verdict for him. Verdict for the Crown.

10th Nov. 1785.—*Adair*, Serjt. applied for a rule to show cause why there should not be a new trial, on the following grounds, set forth in the affidavit of the defendant and another person.

That he was led to suppose, that upon two trials on a question of such importance, no evidence that appeared material to the party would have been suppressed and kept back, and that

they had gone into all the cases that could be made against the patent; that under these apprehensions he did not expect them to adduce, in the next stage of the business, and after so many trials, evidence to attack that which he was conscious could not be justly attacked, the originality of the invention. He went, therefore, into the defence, and instructed his counsel, with a view to the question merely of specification, and came to the trial on the *scire facias* altogether unprepared with respect to the evidence that appeared as to the novelty of the invention, except so far as the witnesses that were accidentally called to explain the specification could speak upon the subject: That he, consequently, was not prepared with that evidence which he would have adduced to contradict and explain the evidence to deprive him of the originality of the invention. Also, that he could adduce evidence to explain the use of several articles in the specification, said to have been introduced only for the purpose of puzzling and perplexing.

That the evidence respecting the want of novelty of the crank could be contradicted most positively by fresh evidence.

LORD MANSFIELD, C. J. : It is very clear to me, upon your own showing, there is no colour for the rule; the ground of it is, if there is another trial, you may have more evidence. There is no surprise stated, no new discovery, but, upon the material points in question, you can give more evidence. There were two questions to be tried, that is, the specification and the originality of the invention; there has been one trial in this court, another trial in the Common Pleas, where this patent has been questioned, and this proceeding is brought finally to conclude the matter, for it is a *scire facias* to repeal the letters patent. The questions to be tried are stated upon record; there is not a child but must know they were to try the questions there stated; they come prepared to try them, they have tried them, and a verdict has been found which is satisfactory to the judge, and now you desire to try the cause again only that you may bring more evidence. Rule refused.

On the 14th November, 1785, the Court of King's Bench gave judgment to cancel the patent.

The summing up of the learned judge in the preceding case, and the proceedings on the former trials, show the real question to have been, not as to whether something of great importance had not been done, but as to the sufficiency of the specification (see also *ante* 59, n.); the invention of Arkwright, the subject-matter of this patent, was of immense value to the nation, since the spinning machinery, the subject of the patent of 1769, was very imperfect without the preparing machinery; and there can be little doubt that had the specification described the particular uses and objects of the several parts, and shown which were to be combined, and how they were to be combined, the letters patent would have been valid, and

Arkwright would have succeeded in maintaining his patent, notwithstanding the formidable combination against him. The principles laid down in the preceding case as to the requisites of the specification, have been recognised in many subsequent cases.

Macfarland v. Price.

This was an action for the infringement of plaintiff's patent "for certain improvements in the making of umbrellas and parasols." The specification and accompanying drawings contain a minute detail of the mode of constructing the improved umbrellas and parasols; but no distinction is made between what is new and what is old. One

of the annexed drawings showed the particular part which had been pirated, and which was the substance of the invention.

Lord Ellenborough, C. J. : "The patentee in his specification ought to inform the person who consults it, what is new, and what is old. He should say, my improvement consists in this, describing it by words if he can, or if not, by reference to figures. But here the improvement is neither described in words nor by figures, and it would not be in the wit of man, unless he were previously acquainted with the construction of the instrument, to say what was new and what was old. The specification states, that the improved instrument is made in manner following : this is not true, since the description comprises that which is old, as well as that which is new. Then it is said that the patentee may put in aid the figures; but how can it be collected from the whole of these in what the improvement consists? A person ought to be warned by the specification against the use of the particular invention, but it would exceed the wit of man to discover from what he is warned in a case like this." Plaintiff nonsuited. 1 Starkie, 199.

The preceding case has been occasionally cited as an authority against a drawing accompanying the specification being considered as part of the specification; but it is no authority for such a doctrine, and Lord Lyndhurst, C. B., on one occasion remarked, "that the above was a complicated case, and that the rule was to be applied with certain limits, not where the thing is quite obvious and apparent." It is now perfectly settled that a drawing alone may be a sufficient specification. See *Law and Practice*, IND. tit. Drawings.

The case of *Harmar v. Playne* should be considered in connexion with the preceding, since it was there held that a specification describing a whole machine, the subject of two patents,

but not referring to the former specification, or pointing out the particular improvement, the subject of the latter patent, was a sufficient compliance with the proviso of the second letters patent, which recited the former letters patent. 11 East, 101.

Saunders v. Aston.

In this case the plaintiff failed on account of a similar defect in his specification. The invention was an improved button, in which the flexible shank was substituted for the metal shank by the special aid of a collet.

Littledale, J. : "Neither the button nor the flexible shank was new, and they did not by merely being put together constitute such an invention as could support the patent. It is contended that the operation of the collet under the present patent is new, but that is not stated in the specification as the object of his invention, and it is, in fact, only one mode of carrying it into effect." 3 B. & Ad. 881.

Williams v. Brodie.

Plaintiff's invention, which was admitted to be ingenious and useful, consisted in the insertion of a pipe into an old stove, for conveying the air into it; but the letters patent and the specification embraced the whole apparatus, and did not confine the invention to the application or addition of the pipe to an old stove. Cited in *R. v. Arkwright*, *Printed Case*, 162.

Kay v. Marshall.

A similar defect was destructive of Kay's patent for improvements in the preparation and spinning of flax; by which invention the manufacture of flax has become an object of national importance; Kay having thereby placed that manufacture in the same rank as Arkwright placed the manufacture of cotton. See cases cited *post* 76, n.

ELSE'S PATENT.

Letters patent to Arthur Else, 29th October, 20 Geo. 3, for Title. "a certain new invented manufacture of lace, called French, or wire ground lace, which is much stronger than any hitherto invented or found out, and also of an entire new construction."

By these presents the said A. E. hath described and ascertained, and doth fully and particularly describe and ascertain, the nature of his said new invented manufacture of lace, called French, or wire ground lace, and also the manner of working the same, that is to say, by mingling, twisting, or weaving a fine thread of silk, or such other material that may answer the purpose of silk, to and with thread, flax, hemp, cotton, or any other manufacture, which usually hath been or may be worked on a stocking frame, which addition of silk to thread, flax, hemp, cotton, or other manufacture, gives strength, firmness, and durability to the work, binding the other materials, and preventing the same being or appearing so rowdy and uneven, as works of that sort are, and hitherto have been, without such addition. The manner of working the same is as is common in the making

or working open work, oylet hole, net work, lace work, &c. and on the stocking frame with the addition thereto commonly used, or by such other engines and machine by which any such work can or may be made to any particular stitch that the workman may think proper.

THE KING v. ELSE.

Cor. Buller, J. M. V. A.D. 1785.

This was a *scire facias* to repeal the preceding letters patent, and the prosecutor having shown that, prior to the patent, silk and cotton thread had been used together and intermixed upon the same frame, the defendant's counsel admitted the fact, but offered to prove that the former method of using the silk and cotton thread was quite inadequate to the purpose of making lace on account of its coarseness, and that the defendant alone had invented the method of intermingling them, so as to unite strength with firmness.

BULLER, J.: It will be to no purpose. The patent claims the exclusive liberty of making lace, composed of silk and cotton thread mixed; not of any particular mode of mixing it; and therefore, as it has been clearly proved and admitted, that silk and cotton thread were before mixed on the same frame for lace, in some mode or other, the patent is clearly void, and the jury must find for the crown. Verdict for the Crown.

Had the specification properly limited the invention, and claimed only a particular mode of mixing the silk and cotton thread, and explained and reduced the title to certainty, the preceding letters patent would, for all that appears, have been valid.

The following cases will further illustrate the nature of an imperfect or erroneous claim in the specification.

Bramah v. Hardcastle.

The merit and utility of the plaintiff's patent for an improved water closet, were admitted.

Lord Kenyon, C. J.: "The stress of the cause mainly depends on this, whether the thing granted by the patent be entirely new. The conducting of the wire through the hollow tube to prevent the obstruction of frost, I admit, is very ingenious, and perfectly new, but is not claimed by the patent. Unlearned men look at the specification, and suppose every thing new that is there. If the whole be not new, it is hanging terrors over them." *Holroyd*, 81.

R. v. Cutler.

This was a *sci. fa.* to repeal defendant's patent for "improvements in fire-grates or stoves;" the specification, after describing the stove, claims as the invention "that the fuel necessary for supply-

ing the fire shall be introduced at the lower part of the grate in a perpendicular or oblique direction; as to the manner of performing it, that is set forth in the description and drawings."

Lord Ellenborough, C. J. was of opinion, that the evidence showed grates to have been constructed prior to the patent, on a principle identical with the concluding terms of the specification; that the patentee by his claim had confined himself to that principle which was not new, and that, therefore, the patent could not be supported, although the application of the principle, as described in the specification, was new. 1 Stark. 354.

Minter v. Mower.

The plaintiff's patent was for an improvement in the construction of chairs; the specification concludes as follows: "What I claim as my invention is the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acts as a counterbalance to the pressure against the back of such chair as above described." It appeared that this description would apply to a chair made before the patent, though that chair was encumbered with machinery which prevented its action. The verdict having been entered for the plaintiff, a rule for a nonsuit was made absolute. *Post*.

TURNER'S PATENT.

Letters patent, 26th February, 21 G. 3, A. D. 1780, for "a *Title.*
method of producing a yellow colour for painting in oil or water,
making white lead, and separating the mineral alkali from com-
mon salt, all to be performed in one single process."

TURNER v. WINTER.

Hil. Vac. A. D. 1787. *Cor.* Buller, J.

This was an action for infringing the above patent. At the trial before *Buller*, J., a verdict was found for the plaintiff, and on a motion to set aside that verdict and grant a new trial, these facts were reported. The plaintiff within the usual time had enrolled the following specification; "Take any quantity of lead and calcine it, or minium, or red lead, litharge, lead ash, or any calx, or preparation of lead fit for the purpose; to any given quantity of the above-mentioned materials, add half the weight of sea salt, with a sufficient quantity of water to dissolve it, or rock salt, or sal gem, or fossil salt, or any marine salt, or salt water, proper for the purpose; mix them together by trituration till the lead becomes impalpable, or sufficiently comminuted. When the materials have been ground, let them stand for twenty-four hours, in which time the lead will be changed to a good white, and the salt decomposed: if not, the trituration must be repeated with the further addition of salt, till the white colour be obtained; the decomposition of the salt may also be brought about by digestion or by calcination. The materials may be suffered to remain together before the alkali is separated by the addition of water, for a longer time than is specified above, according to the discretion of the operator, and the end he wishes to obtain. The yellow colour is produced by calcinating the lead after the alkali has been separated from it, till it shall acquire the colour wanted; this will be of different tints, according to the continuance of the calcination, or the degree of heat employed. The white lead must be finished by repeated ablutions, and by bleaching it till the white be made perfect."

A patent is void if the specification is ambiguous, or gives directions which tend to mislead the public.
Specification.

On the part of the plaintiff it was proved, that the first effect of the process was the separating of the mineral alkali from common salt; that that produced white lead, and that by continuing the process to a certain degree, and afterwards exposing the matter, the yellow colour was produced. That as the specification required the heat to be continued till the colour was obtained, any person trying the experiment would necessarily be

led to fusion. That a chemist would see by the specification, that if less heat would not answer the purpose, he must go on to fusion. The difference between fusion and calcination, both of which proceed from different degrees of heat operating upon the subject-matter, was, that the substance to be calcined continued in a solid form, whereas fusion is a liquid state to which the substance may be reduced by continuing the heat. Instances were produced of persons who had made the colour by the help of the specification, after trying some experiments. In trying those experiments, minium had been fused in the first instance. The white lead produced by the following directions in the specification was not what was sold as such, but a white substance, the basis of which was lead.

For the defendant it was proved, that the patent colour could not be made by following the directions of the specification. For calcination was not sufficient to produce the effect intended; it was necessary to go on to fusion. That as it appeared upon the specification minium, or red lead, might be considered most convenient for the purpose, because a previous process was necessary to reduce lead to minium, or litharge, before the other parts of the process were to be begun, minium and litharge differing only in having undergone different degrees of calcination. But that minium would not produce the effect unless first fused. And that if red lead were calcined, the experiment would not succeed without fusion; whereas, according to the terms of the specification, fusion should be cautiously avoided. That the specification was calculated to mislead also with respect to the salts. For fossil salt is a generic term, including all mineral salts; but only one species of fossil salt, namely, sal gem, has marine acid, without which the colour could not be produced. That several persons had tried to make white lead by the specification, but had not succeeded. They could only produce a greyish white powder, quite unfit for painting, and not merchantable.

BULLER, J. after reporting these facts, observed, that at the trial three objections had been taken to the specification. 1st. That, after directing that lead should be calcined, it directed another ingredient to be taken, which would not answer the purpose, viz. minium. Neither was it said that the minium should be calcined or fused; but if it had any reference to the preceding words, then it should be calcined, which would not produce the effect, fusion being necessary. 2d. That "fossil salt" was improperly mentioned. There were many kinds of fossil salt, only one of which, viz. sal gem, would answer the purpose, because it must be a marine salt. 3rd. That all these things put together did not produce the thing intended. And that the patent was for an invention to do three things in one process, whereas one of them, viz. white lead, could not be pro-

duced at all; for that a white substance like white lead remained, applicable only to some of the purposes of common white lead. The learned judge then said that at the trial he had told the jury that if any of these objections were well founded, it would avoid the patent.

Erskine and *Piggot* showed cause against the rule for granting a new trial, and contended that in actions for infringing patents, it is not necessary for the plaintiff to give any evidence to show what the invention is, but that it is incumbent on the defendant, if he objects to the specification, to show that it is defective, and that persons acquainted with the subject could not, by the assistance of the specification, effect the thing intended. The consideration which the patentee gives for his monopoly is the benefit which the public are to derive from his invention after his patent is expired; and that benefit is secured to them by means of a specification of the invention. But it is not necessary that that specification should be such as that persons unacquainted with the terms of art, which must necessarily be used in writing it, should be able to understand it. It is sufficient if persons of skill can understand the process by means of the specification, so as to keep alive the discovery after the patentee's exclusive title is expired.

The first objection which has been raised against the sufficiency of the specification has no weight; for though the direction to calcine is applicable to all the ingredients in the first part of the description, yet scientific persons would instantly discover what degree of heat was necessary to be used to each of those ingredients, and that minium, being already a calx, must be fused (*a*). Secondly. The heat is ordered to be continued till the experiment succeeds, and the colour is produced. Fusion is a necessary consequence of continuing the heat, and this direction would be sufficiently understood by all persons acquainted with the subject.

As to the second objection, with respect to the "fossil salt." The specification begins with "sea salt," which is the genus; then it afterwards states not "any fossil salt," but "fossil salt," or "any marine salt;" the marine salt is therefore the basis of the experiment. So that no fossil salt but what is likewise a marine salt, can be taken under this description.

The answer to the third objection is, that a species of white lead is produced, though not the common ceruse; and the patent does not profess to make the common white lead. Besides, the making of white lead was not the subject of the present ac-

(a) The argument that a defect or misstatement in a specification, by which a scientific person or even a common workman would not be misled, is not such a defect as will vitiate a specification, was urged with great force in the recent case of *Neil-*

son v. Hayford, but the Court of Exchequer were unanimously of opinion, that a statement untrue in fact could not be corrected by such knowledge or experience, and that such an error or misstatement would be a fatal defect. *Ante* 66, n.

tion, which was for making the yellow colour; which accounts for the plaintiff's not being prepared to prove this part of the specification (*b*). Upon the whole, this was a mere matter of evidence, as to the sufficiency of the specification, upon which the jury have exercised a sound discretion (*c*).

Bearcroft, in support of the rule, was stopped by the court.

A patent being a monopoly against law, but for the subsequent advantage to the public,

Any ambiguity intentionally introduced, fatal.

ASHURST, J.: I think that, as every patent is calculated to give a monopoly to the patentee, it is so far against the principles of law, and would be a reason against it, were it not for the advantages which the public derive from the communication of the invention after the expiration of the time for which the patent is granted. It is, therefore, incumbent on the patentee to give a specification of the invention in the clearest and most unequivocal terms of which the subject is capable. And if it appear that there is any unnecessary ambiguity affectingly introduced into the specification, or any thing which tends to mislead the public, in that case the patent is void. Here it does appear to me that there is at least such a doubt on the evidence that I cannot say this matter has been so fully and fairly examined as to preclude any farther investigation of the subject. Three objections have been made to this specification. The first is, that in the specification the public are directed "to take any quantity of lead and calcine it, or minium, or red lead;" from whence it is inferred that calcining is only to be applied to *lead*. I confess, if the objection had rested here, I should have entertained some doubt.

The next objection is, that in the subsequent materials to be added, the public are directed to add "half the weight of sea salt, or sal gem, or fossil salt, or any marine salt." Now "fossil salt" is a generic term, including "sal gem" as well as other species of fossil salt. And I understand that sal gem is the only one which can be applied to this purpose; so that throwing in fossil salt can only be calculated to raise doubts and mislead the public. That word could not have been added with any good view; it must produce many unnecessary experiments; therefore, in that respect, the specification is not so accurate as it ought to have been.

Another objection was taken as to the white lead; to which it

(*b*) The terms white lead being introduced in the title, the real objection would be that the letters patent were void for false suggestion. The production of white lead, a known article of commerce, and the production of a white substance, however resembling, are very different suggestions and considerations. See *ante* 41, n.

(*c*) The sufficiency of the specification in respect of its enabling a competent person to practise the invention and work by it, is a question for the jury, and the plaintiff is bound to give evidence establishing its sufficiency in this respect. It

would appear also to be the province of the jury to find the meaning of words, and what persons of ordinary knowledge of the subject would understand by them. It is then for the court to say whether the letters patent and specification, viewed as one instrument, are sufficient in law.

In this case the plaintiff gave no evidence of the sufficiency of the specification, or that the substances mentioned would answer, or that the yellow could be produced in the manner described. *Post* 81.

was answered, that the invention did not profess to make common white lead. But that is no answer; for if the patentee had intended to produce something only like white lead, or answering some of the purposes of common white lead, it should have been so expressed in the specification. But in truth, the patent is for making white lead and two other things by one process. Therefore, if the process, as directed by the specification, does not produce that which the patent professes to do, the patent itself is void. It is certainly of consequence that the terms of a specification should express the invention in the clearest and most explicit manner; so that a man of science may be able to produce the thing intended, without the necessity of trying experiments.

BULLER, J.: Many cases upon patents have arisen within our memory, most of which have been decided against the patentees, upon the ground of their not having made a full and fair discovery of their inventions. Whenever it appears that the patentee has made a fair disclosure, I have always had a strong bias in his favour, because, in that case, he is entitled to the protection which the law gives him. How far that law which authorises the king to grant patents is politic, is not for us to determine. When attempts are made to evade a fair patent I am strongly inclined in favour of the patentee; but where the discovery is not fully made, the court ought to look with a very watchful eye to prevent any imposition on the public. Then the question is, whether the present plaintiff has made a fair discovery? I do not agree with the counsel who have argued against the rule in saying that it was not necessary for the plaintiff to give any evidence to show what the invention was, and that the proof that the specification was improper, lay on the defendant; for I hold that a plaintiff must give some evidence to show what his invention was; unless the other side admit that it has been tried and succeeds. But wherever the patentee brings an action on his patent, if the novelty or effect of the invention be disputed, he must show in what his invention consists, and that he produced the effect proposed by the patent in the manner specified. Slight evidence of this on his part is sufficient, and it is then incumbent on the defendant to falsify the specification. Now in this case, no evidence was offered by the plaintiff to show that he had ever made use of the several different ingredients mentioned in the specification; as, for instance, minium, which he had nevertheless inserted in the patent, nor did he give any evidence to show how the yellow colour was produced. If he could only make it with two or three of the ingredients specified, and he has inserted others which will not answer the purpose, that will avoid the patent. So if he make the article for which the patent is granted with cheaper materials than those which he has enumerated, although the latter will answer the

The question on the specification is, has the plaintiff made a fair discovery?

A plaintiff must give some evidence of the sufficiency of the specification unless admitted.

The insertion of substances which will not succeed, a fatal defect.

purpose equally well, the patent is void, because he does not put the public in possession of his invention, or enable them to derive the same benefit which he himself does.

As to the first objection which has been taken with respect to the minium, it was not pretended by any of the plaintiff's witnesses that he ever made use of minium. And it was proved by the defendant's witnesses, that from the specification they should be led to use minium, because minium is lead already calcined, which is what the specification directs in the first instance. But minium will not answer the purpose. Then as to fusion: it is said that the public are directed by the words of the specification, to continue the heat till the effect is produced, which must necessarily lead to fusion, though fusion is not expressly mentioned. But that is no answer to the objection; for the specification should have shown by what degree of heat the effect was to be produced. Now it does not mention fusion, and as one of the witnesses said, in order to produce the effect "you must go out of the patent;" for fusion is beyond calcination, and, in some sense, contrary to it; and by mentioning calcination, it should seem that fusion was to be avoided.

The next objection was as to the salts: "fossil salt" is mentioned as a distinct species of salt, and many other salts are also mentioned, as indifferent whether one or the other be used. But it was proved that fossil salt was a generic term, including several species; and that "sal gem" was the only species of it which would answer the purpose, because none of the others contained a marine acid, which was essential.

There was no contradiction by the witnesses on the third objection; for the most that the plaintiff's witnesses said was that, following the specification, the experiment only produced a white substance like lead.

The false suggestion or failure of consideration, is the ground of avoiding the grant.

Now on either of these grounds the patent is void. Because, if the patentee says that by one process he can produce three things, and he fails in any one, the consideration of his merit, and for which the patent was granted, fails, and the crown has been deceived in the grant. Slight defects in the specification will be sufficient to vacate the patent. In a case before Lord Mansfield (*ante* 53) for infringing a patent for steel trusses, it appeared that the patentee, in tempering the steel, rubbed it with tallow, which was of some use in the operation; and because this was omitted, the specification was held to be insufficient, and the patent was avoided.

Rule absolute for a new trial.

It appears from the preamble of the act for the extension of the term of the patent (*post* 84), that the plaintiff succeeded on the second trial. The principles laid down in the preceding have been recognised in many subsequent cases.

Wood v. Zimmer.

In this action to try the validity of Zinck's patent for "a method of making verdigris," it appeared that the method described in the specification was sufficient to make the verdigris; but that

Zack had been accustomed clandestinely to put *aqua fortis* into the boiler, whereby one of the ingredients, copper, was dissolved more rapidly; but the verdigris so produced was neither better nor cheaper than that made according to the specification.

Gibbs, C.J.: It is said that the method described makes verdigris, and that the specification is, therefore, sufficient. The law is not so: a man who applies for a patent and possesses a mode of carrying on that invention in the most beneficial manner, must disclose the means of producing it in equal perfection, and with as little expense and labour, as it costs the inventor himself. The price that he pays for his patent is, that he will enable the public, at the expiration of his privilege, to make it in the same way, and with the same advantages. If any thing that gives an advantageous operation to the thing invented be concealed, the specification is void. Now, though the specification should enable a person to make verdigris substantially as good without *aqua fortis* as with it, still, inasmuch as it would be made with more labour by the omission of *aqua fortis*, it is a prejudicial concealment, and a breach of the terms which the patentee makes with the public. Holt N.P. 60.

Sewory v. Price.

The plaintiff had a patent "for a method of making a neutral salt or powder possessing all the properties of the medicinal spring at Seidlitz, under the name of Seidlitz Powder." The specification gives three distinct recipes for preparing the ingredients, and then directs two scruples of each of the three ingredients, resulting from those recipes, to be dissolved in half a pint of water, in order to produce the imitation of Seidlitz water. It was proved that by following the directions given in the specification, the result was obtained, and that it was new and useful. It appears that the three recipes were only common processes for preparing three well-known substances, viz. Rochelle salts, carbonate of soda, and tartaric acid, which were sold in shops before the date of the patent; and those three substances being used as directed, constituted the patent Seidlitz powder; the specification did not give any name to the ingredients resulting from the three recipes; but gave those recipes without comment, as if they were part of the method of making the Seidlitz powder.

Abbott, C.J.: It is the duty of a patentee to specify the plainest and most easy way of producing that for which the patent is granted, and to make the public acquainted with the mode which he himself adopts. By reading this specification, we are led to suppose a laborious process necessary to the production of the ingredients, when in fact we might go to any chemist's shop and buy the same things ready-made. The public are misled by this specification, which tends to make people believe that an elaborate process is essential to the invention; it cannot be supported. — Plaintiff nonsuited. Ry. & M. 1.

Crompton v. Ibbotson.

The plaintiff's patent was for "an improved method of dying and finishing paper," and the specification described the invention to consist in conducting paper by means of cloth or cloths against a heated cylinder, and contained the following words, "which cloth may be made of any suitable material; but I prefer it to be made of linen warp

and woollen web." The patentee knowing from repeated trials that no other substance would do.

Lord Tenterden, C.J.: Other persons, misled by the terms of this specification, may be induced to make experiments which the patentee knows must fail; and the public, therefore, has not the full and certain benefit of the invention. — Rule for nonsuit absolute. Dan. & L. 33.

Sturts v. De la Rue.

Lord Lyndhurst, L.C.: It is a principle of patent law, that there must be the utmost good faith in the specification. It must describe the invention in such a way, that a person of ordinary skill in the trade shall be able to carry on the process. Here the specification says, that there is to be added to the size certain proportions of "the finest and purest chemical white lead." A workman would naturally go to a chemist's shop, and ask for "the finest and purest chemical white lead;" the answer which he would receive would be, that there was no substance known in the trade by that name. He would be compelled to ask for the purest and finest white lead; and, according to the evidence, the purest and finest white lead that can be procured in London will not answer the purpose.

It is said that there is a substance prepared on the continent, which is white lead, or some preparation of white lead; and that, by using it in the manner described in the specification, the desired effect is produced. If that be so, the patentee ought to have directed the attention of the public to that circumstance. He ought to have said, "the purest white lead which can be obtained in the shops in London will not do; but there is a purer white lead, prepared on the continent, and imported into this country, which alone must be used." "The purest and finest chemical white lead," must mean the finest and purest white lead usually gotten in the general market for that commodity, unless the public be put on their guard by a statement, that what would be called very fine and pure white lead, in the ordinary sense of the trade, will not answer, but that the white lead used must be of a superlatively pure and fine quality, prepared in a particular way, and to be gotten only in a particular place. If the article is not made in this country, but may be imported, it would be necessary to mention that circumstance.

It is said that the description in the specification will be sufficient, if the substance is known in the trade by the name of "the purest and finest white lead," or "the purest and finest chemical white lead." But it does not appear that there is any substance generally known in the trade by that denomination.

It is alleged that the substance can be purchased at the shops in London, and two are specified. In point of fact, it has been purchased only at one of those shops, and they are not chemist's shops, but colour shops.

It appears to me that this specification does not give that degree of full and precise information which the public have a right to require. In this state of the evidence, therefore, the injunction cannot be sustained. 5 Russ. 327.

The patentee must not only give the best information according to his knowledge at the time of his patent, but communicate any thing which he may have acquired in the interim allowed for specifying. *Crosley v. Brerley*.

See further *Neilson v. Harford*.

32 G. 3, c. 73.

Act,
A. D. 1792.

An Act for vesting in James Turner, his, &c. the sole use and property of a certain yellow colour of his invention.

After reciting the grant of the letters patent, and further reciting, "And whereas the yellow colour used in this country for painting coaches and various other things, was before that period imported from abroad; but the yellow colour invented by the said James Turner, and which is composed of British materials only, has been found to be far superior to the foreign, and it is also less expensive, and has not only in a great measure superseded the necessity of importing that article, but is now exported in considerable quantities to most parts of Europe, the East and West Indies, and America, by which it has become an object of importance to the trade and commerce of this kingdom, and by the great consumption of common salt necessarily used in preparing the same, the said invention will afford an increase to the public revenue; the said invention has also rendered unnecessary the use of those noxious colours, king's yellow and orpiment, by which the health of the workmen has been frequently much injured. And whereas, notwithstanding the benefit this country will derive from the said invention, the said James Turner has been hitherto deprived of the benefit he expected to have received from his said invention, by the artifices of certain chemists and colourmen, who, taking advantage of his specification for preparing the said yellow colour, which he had caused to be enrolled in the High Court of Chancery, agreeable to the conditions of the said letters patent, and being in possession of the channels of the trade, have secretly invaded his patent, and have supplied the consumers with an inferior sort, or an imitation of the said yellow colour, without the consent of the said James Turner, by which means the sale of the yellow colour invented by him hath been almost totally taken away from him, particularly in the years 1787, 1788, and 1789, the whole of his receipts at those periods not amounting to the unavoidable expenses incurred in the preparation of the said yellow colour. And the said James Turner having instituted various actions and suits in law and equity against several of the persons who invaded his patent, one of such actions came to trial, and he obtained two verdicts therein (a new trial having been granted), and he also obtained an injunction in the court of Exchequer in consequence thereof; but the prosecuting such actions and suits was attended with much expense and loss of time to the said James Turner, and the damages awarded upon the said verdict were only nominal; so that unless the term granted by the said letters patent be prolonged, and the property in the said inven-

tion secured to him for an additional term, he cannot receive an adequate recompense for his labour, expense, and time, in bringing his said invention to perfection;" vests the sole privilege of making and vending the said invention in Turner, his, &c., for eleven years.

The other sections of the act were to the following effect: S. 2. That Turner having for some time past furnished the said colour wholesale at five guineas per cwt., to the end that the public may be assured of the advantage of the invention at the same price, should not take any greater price.

The small patents, *ante* 12, and Hartley's act, *ante* 56, contain similar restrictions.

S. 3. This act not to hinder the making or using any colour, &c. not at present of the invention of Turner, or which has been publicly used and exercised before the date of the patent.

See similar provisos *ante* 34, 40, 53.

S. 4. Objection that said colour was not a new invention saved.

This proviso is the same as in the acts *ante* 53, 55; but in the act (15 G. 3, c. 61) for the extension of Watt's patent, the proviso saves any objection competent against the patent, except as to the extended term; so that an objection to the sufficiency of the specification would have been competent in Watt's case, notwithstanding the act. See *ante* 8.

S. 5. Privileges not to be vested in more than five. S. 6. A public act.

HUDDART'S PATENT.

Letters patent to Captain Huddart, 25th April, 33 G. 3, A.D. *Title*. 1793, for "a new mode of making great cables and other cordage, so as to attain a greater degree of strength therein, by a more equal distribution of the strain upon the yarns."

The substance of this invention is the making strands in *Specification*. which all the yarns shall be disposed in concentric cylindrical layers about a centre yarn. The yarns to form the strand are wound on separate bobbins; each yarn is then passed through holes in a register plate, these holes being on the circumferences of concentric circles around a central hole, and all the yarns are then passed through a cylindrical tube. The strand thus formed is drawn forward with a screwing motion through the tube, the effect of which is to compress the strand into a compact form, in which each yarn will occupy its proper place, at the same distance from the centre of the strand. The bobbins being at liberty, each allows the requisite quantity of yarn to be unwound from it, according to the place the particular yarn occupies in the strand, whether at the outside or inner part; the centre yarn being the shortest and the exact length of the rope.

HUDDART v. GRIMSHAW.

Mich. Vac. A. D. 1803. *Cor.* Ld. Ellenborough, C. J.

This was an action for the infringement of the above patent; the circumstances of this case are stated in great detail in the summing up of the learned judge (a).

(a) For speeches of counsel, Erskine for the plaintiff, and Gibbs for the defendant, see *Dav. Pat. Ca.* 265.

Lord ELLENBOROUGH, C. J.: This is an action to recover damages for the violation of a patent entitling the plaintiff, for a limited period of time, to the monopoly of an invention, which he states to be new, and beneficial to the public. This is a species of property highly important, as it respects the interests of the individual, and with him also the interests of the public; on the one hand, persons who are really the means of promoting any beneficial object should be protected for the period the law allows, and that they should have the benefit of the article so invented; and, on the other hand, in case they are not the inventors, that they should not lock up from the public, for that limited period of time, that invention, which, if they are not the inventors, they have no priority to, and which ought to be open to the public. In inventions of this sort, and every other through the medium of mechanism, there are some materials which are common, and cannot be supposed to be appropriated in the terms of any patent. There are common elementary materials to work with in machinery, but it is the adoption of those materials to the execution of any particular purpose that constitutes the invention (*b*); and if the application of them be new, if the combination in its nature be essentially new, if it be productive of a new end, and beneficial to the public, it is that species of invention which, protected by the King's patent, ought to continue to the person the sole right of vending; but if, prior to the time of his obtaining a patent, any part of that which is of the substance of the invention has been communicated to the public in the shape of a specification (*c*) of any other patent, or

Highly important that invention should be protected.

Invention consists in the adoption of common elements for the execution of a particular purpose.

Publication in the specification

(*b*) The attaining a particular purpose by the application of known things, is, in the opinion of the learned judge, that which constitutes an invention; and if the end, effect, or result, attained thereby be new and useful, the invention is such as will entitle the inventor to the sole right of vending it for a limited time. In the present instance, a principal part of the invention was the application of the tube in the particular manner described in the manufacture of ropes, and the result was a rope of greatly improved properties. It is important in this and similar cases, that the end or result, and the means by which such end or result is attained, should be carefully distinguished from each other; these means may, to all appearance, be trifling and insignificant, such as it would appear might have suggested themselves to any person. The history of invention presents many instances of very important results produced by changes apparently trifling and insignificant. The steam printing machine was on the point of being abandoned, from a defect which was entirely obviated by setting the inking rollers in a slightly oblique position; the immersing cloth in hot water, and the shearing it in one direction, as from list to list instead of from end to end, increased very greatly the value of the cloth so dealt with. See *post*, notes to Hall's patent.

(*c*) The principle of this would appear to be, that as specifications are enrolled for the benefit of the public, and are of the nature of public records,

every person who solicits letters patent must be presumed to have consulted these documents, and to have made himself acquainted with their contents. This may be a good legal presumption, but it is one not founded on fact, and daily experience shows, that inventions are reproduced by successive inventors. It frequently happens, that an invention is in advance of the age in which it is made, and consequently does not then come into general use, but is wholly lost sight of. Subsequently, a fresh demand having sprung up, or some trifling and adventitious circumstance having occurred, the same thing is reinvented by an independent inventor, without any previous knowledge of what had been done before, and then becomes an important addition to the manufactures of the country. Is not such an invention new within the words both of the statute and of the letters patent (*ante*, 44, n.)?

Such subsequent inventor is the true and first inventor for all practical purposes. It would appear from the early cases (*ante*, 8), that these words import, that the invention is not to be obtained from another person; and on the same principle, if the invention be taken from a book or a specification, the party so taking it would not be the true and first inventor; and if the invention could have been derived from such a source, a presumption is raised that it has been so obtained. See *Law and Practice*, Statutes 6 & 6 W. 4, c. 83, s. 2, n. n.

is a part of the service of the country so as to be a known thing, in that case he cannot claim the benefit of his patent; and in claiming the benefit of a patent, it is required that there shall be enrolled a specification, which shall convey to the public a corresponding advantage with that of the individual whose sole right is protected for that time, so that any person looking at a specification, who is skilled in the subject, may be able to accomplish the end; and if in stating the means necessary to the production of that end, he oversteps the right, and appropriates more than is his own, he cannot avail himself of the benefit of it. I don't mean if he states a bobbin which was in common use before, but if he states any particular thing before in common use, applied in a new manner to the production, and effecting a new end, that is part of the substance of the invention. And if he states that which of itself is not new, but old and known to the world, though it was unnecessary for him to do so, having done so, he has overstepped his right, and has included in his invention that which is not his invention; in that respect his patent would be void. It is for you, applying these observations to the present patent, of Mr. Belfour and of Mr. Huddart, to say whether this is a new invention, whether the springs are substantially a part of the invention, and if they be, whether they are new. It is likewise to be considered whether the tube is a new invention: and the next consideration, supposing you should be of opinion that it is a new invention, and old means adapted to the production of a new effect, whether the defendant has been guilty of an infraction of the patent; and I premise these observations for your better understanding the evidence.

tion of a prior patent of the substance of the invention, will vitiate.

Specification must be sufficient for persons skilled in the subject.

The insertion of unnecessary matters will vitiate a specification.

The first piece of evidence is a letter, dated "Patent Ropery, near Sunderland, 21st August, 1779. Our Mr. Grimshaw has just got home, and has informed us of your friendship to him, for which please to accept our thanks. He also informed us, that you have a patent for improvements in rope-making, and that you were so obliging as to say, that we might use your methods (at our ropery only) without premium, provided that the gentlemen concerned with you had no objections. As we are anxious to forward any improvements in the manufacturing of an article of so much importance to this maritime country, we take the liberty of requesting you will please to inform us, whether we may consider ourselves at liberty to proceed in the adoption of your inventions." Now, to be sure, no argument arises upon the face of this letter, that they knew and admitted that the invention of Mr. Huddart was a new invention, unless they were perfectly cognizant of all its parts at that time. But that does not appear from this letter; it does appear, that this man had visited their manufactory, and after he had got home, he wished to have the liberty of using their invention; that liberty is refused by a letter of the 29th: "Gentlemen, your

Evidence for plaintiff.

letter of the 21st has been communicated by Captain Huddart (who is now on a survey) to the other gentlemen in the concern. Apprehensive a grant to you might lead to an invasion of our patent from other quarters, in justice to ourselves, after the considerable expense that has been incurred, we feel ourselves under the necessity of refusing your request." These letters are in 1799. Now, there is a letter since, so late as 15th July, 1800: "Gentlemen, after your application to Captain Huddart, for liberty to use his patent methods of making ropes, and our refusal to permit the same, it has greatly surprised us to receive information (as we have lately done), that you have introduced those methods of making ropes into your manufactory without our license, and even against our consent; and that you use and vend ropes so manufactured in considerable quantities, in violation of the exclusive privileges granted by the said patent, and consequently to our great loss and injury. We should be sorry to be engaged in a litigation on this subject, especially with your house. It would give us great pleasure, if you could satisfy us that we were misinformed: but fearing that is not the case, and being resolved to protect our property in the most effectual and decisive manner, and to suffer no encroachment on, or violation of, those rights which we constantly respect in others, we think it proper to give you notice, that unless you henceforth desist from the use of Captain Huddart's patent above mentioned, and make us proper acknowledgments for what is past, we shall immediately cause the necessary proceedings to be instituted against you for our protection in future; and to obtain a compensation in damages for the injuries we have already sustained." This is a letter giving them notice, that necessary measures would be taken against them, to obtain a compensation in damages. In answer to this, there is a letter of the 23d July, in the same year: "Sir, we have received your letter of the 15th instant, and as we believe that we have not introduced into our manufactory any methods for making ropes, in which you are entitled to an exclusive privilege, we conclude you are misinformed on that point; but, being equally with yourselves desirous of avoiding litigation, if you will inform us the instances, or in what parts you suppose us to have infringed on your patent rights, we may, perhaps, be able to convince you, that there is no foundation for the charge. At the same time, to show you how little we are disposed to be litigious, we have for some time past remarked, that there are parts of Captain Huddart's specification strictly within our prior patents, which we have refrained from noticing, because we would avoid contention as much as possible." Then there is another letter of the 14th July, 1801: "Gentlemen, being informed that you carry on your manufactory of ropes in a secret manner, and as you refused me admission when I called upon you at the ropery, and having seen

some ropes that were made by you, I am convinced, by the A.D. 1803. inspection of those ropes, as well as by your secret manner of conducting your business, that you are making use of my patent method of registering the strands of cordage, as described in the specification of my patent of the year 1793, and am therefore desirous that your manufactory should be inspected on my behalf by my friend Mr. John Rennie, engineer, whom I introduce for that purpose. Your answer and conduct on this occasion will enable me to determine in what light to consider you and your proceedings in this matter; and unless I shall hereafter be better satisfied with the fairness and rectitude of your transactions than I am at this time, I shall commence and carry on against you such proceedings in law or equity, or both, as counsel shall advise." That letter is no further material, than as it contains this complaint against them, and desiring to see their manufactory, which was refused.

The first witness called on the part of the plaintiff is Mr. Stodday, book-keeper to the defendants, who has been in that situation better than six years. He says, "From 1797 to 1800, he was acquainted with their manner of making ropes; they then made ropes in the common way, in an open rope-walk; he is not acquainted with the manner in which they now make their first strand; a rope is composed of three strands; I was advised with before in the common way; although I live with them as before, I do not know in what mode their ropes are now made; I am not acquainted with the manner of making Mr. Huddart's ropes." Upon cross-examination he says, up to 1800, the defendants made their strands in the common way, in a rope-walk. To be sure, no imputation lies upon them for not communicating to their own workmen so important a discovery, as that the business of a rope-walk should be carried on in so small a space as is represented. "A common rope-walk," he says, "must be the full length of the yarn; they make it now in an enclosed place not the twentieth part of a rope-walk." Upon being re-examined, he says, he saw the strands after they were made, and in opening out the strands, he observed a difference between the ropes made by them and the common ropes. In those, he says, made by his masters, the yarns all bear an equal proportion of strain, which is not the case with common ropes.

Mr. John Rennie is then called: he says, he is an engineer *Mr. Rennie's evidence.* by profession; that he is acquainted with the subject of rope-making; that, by the old mode, the yarns for the strands are cut of the same length; they are stretched on the ground, previous to being twisted. When the twisting took place, some of the yarns took one station in the strand, and some another; those nearest the outside, passing over a large space in the operation of twisting, were necessarily brought to a considerable degree of tension, while the yarns towards the centre of the

strand become puckered up. The effect was, that when a strain was put upon the rope, the external yarns sustained the weight, and those towards the centre sustained no part of the weight; when the strain, therefore, was put upon the rope, the outside yarns having been brought to a great degree of tension, naturally gave way first; those in the next degree of tension gave way next, and so on, till the centre yarns, which were originally puckered, came to bear the weight. The number of yarns being diminished, of course those in the centre were unable to sustain the weight. He says, the common rope gave way in the manner I have stated; in the wearing of a rope the outside yarns wear first, then the second set of yarns, and so on; a much less weight would break them in this state than would otherwise break them; and this continued, that is the unequal strain continued, down to Mr. Huddart's patent. He says, "I have examined the patent and specification with attention; it appears to me to have provided a perfect remedy for this defect by a new method. The specification and drawing annexed to it will enable a man of science to understand the method, and how it should be carried into effect." He says, "I have attended to the manner of constructing strands upon Mr. Huddart's plan." He assumes that the yarns to be manufactured have been usually put on bobbins; they are then passed singly through a plate, which is called a register plate, composed of holes formed in concentric circles; they are then passed through a cylindrical tube, which may be either solid or composed of two semicircular pieces; the tube is the most essential part of the invention; the yarns passing through the register plate are formed into one strand by this tube; being disposed in concentric circles, they take the same relative position in the tube which they had before in passing through the holes, and in that state of relative position the strand is composed of concentric circles or shells of yarns, the outside shell being of a larger diameter; the second shell or layer being of less diameter than the outside layer, the yarns are so much shorter; each layer diminishes gradually till they come to the centre, which consists of a single yarn the length of the strand. I have examined some that have been so manufactured, and the strand being composed of compressible materials, if it were broke in the state in which it came from the registering machine, the centre yarn would break first, that next to the centre would break second, and the outside yarn would break last; the outside shell of yarns surrounding a considerable body of hemp when it is brought to a degree of tension, the outside yarns compress the body of them within, and by this compression the angle is diminished, and they become longer; the centre yarn being at its full length snaps first, then the next, and so on. In order to prevent this difficulty, Mr. Huddart has contrived a mode of what he calls setting up or hardening; after the strand comes

from the register he gives it an additional twist, and by this means the centre yarn becomes one-eighteenth part shorter, the outer yarns from the centre are set up proportionably to the centre, and by that means compressing the whole mass, each yarn is brought to a greater degree of tension than when it came from the registering machine, so that a weight being put upon the strand before it breaks, it lengthens as much as it had contracted before, and when it breaks the whole snaps together." He says the patent rope, upon an experiment he tried, bore a weight of 17 tons, 5 cwt. and 1 qr., and that a rope made in the common way, of the same materials, bore only 8 tons, 13 cwt. 1 qr. and 4 lb; and he says the patent rope broke all at once, and the old-fashioned rope snapped on the outside first, then the next yarn, and so on to the centre. He says this is a most important improvement. He says he should have no difficulty in constructing the necessary machinery for making a rope upon Mr. Huddart's plan, by looking at the patent and the specification. That is material to show that the specification is sufficiently explicit to enable a person of skill in the subject, upon reading it, to accomplish the purpose it professes to execute. Some rope of the defendant's manufacture being put into his hands, he says, if this is made upon Mr. Huddart's construction, the yarn that is on the outside at first will be the outside throughout the whole length of the strand, and will be the longest yarn; the second shell will be the next longest, and so on to the centre, which will be the shortest. He says, I know of no other mode but Mr. Huddart's for producing this effect, and in proportion as that is deviated from, the strands will be worse; this exhibits to the eye that regular gradation of length in the different shells which he should expect to find in Mr. Huddart's invention. The external yarn is two inches longer than the piece of strand; the second is somewhat shorter than the first, and taking a yarn out of the third, he says that is half an inch shorter than the second; and taking a yarn out of the centre, he says it is a little longer than the strand, owing to the setting up; and the result he draws is, that he believes this to be made upon Mr. Huddart's method. And I should state that this is certainly what is called *prima facie* evidence of its having been made by that method, when one sees it agree in all its qualities; when it is produced with a rope actually made upon Mr. Huddart's plan, it is *prima facie* evidence till the contrary is shown that it was made upon his method, and, therefore, as against him it should seem, supposing this patent in full force and a valid one, it is reasonable fair evidence, in the absence of contrary evidence, to presume that it was made in that way. There is certainly great weight in the observation of the counsel, "am I to come forward and divulge my mode of making rope, from which I reap a great advantage?" Whether it was necessary to have gone that length

The similarity of structure in two things is presumptive evidence of their being made in the same way.

in proof, does not appear; persons might have been called upon who might not be privy to the making of the strands in the small room; however, whether it puts him to inconvenience or not, the question is, whether it is *prima facie*, probable, presumptive evidence, in the absence of evidence on the other side, and it is a competent ground for you, if you think the facts bear you out, to form that conclusion upon (d).

Then a letter is read, threatening to bring an action, and insisting upon seeing the manner in which the manufacture was carried on. The answer to that letter is received verbally. Mr. Rennie put it down in writing: he says, "after delivering the letter to Mr. Grimshaw, I asked him to show me those parts that he did not generally show. He refused, because he did not show them to others, and because there were several partners to be consulted." He says, "I am certain, according to my judgment, that the specimen of the rope sold to Mr. Walker is made upon Mr. Huddart's principle. I know of no other mode but that mentioned in his specification in which it can be done in the perfect manner that this is done; there might be another mode without the perforated plate, by which it might by chance be done; but with it, it will be done with certainty."

Upon his cross-examination, he says it would be a lucky hit if such a rope was made without the perforated plate; it could not be done otherwise than by chance. He says he thinks this has been set up, or hardened up, according to Mr. Huddart's method, described in the specification. He says he has not seen a model of the machine of 1793 that he recollects; and no model has been shown us of the patent obtained in that year. The object of the patent is a more equal distribution of the strain upon the yarns; each yarn is wound round a separate bobbin. Now the object of this patent, and to be sure the objects of the two patents are substantially the same, both of Mr. Belfour and Mr. Huddart; but it does not follow, that because the ends are materially the same, it is thereon open to the public. It has happened to me in the same morning to give, as far as I was concerned, my consent to the granting of three different patents for the same thing; but the modes of attaining it were all different, and I thought I was entitled to receive them. He says the object of the patent was a more equal distribution of the strain upon the yarns; the bobbins are ranged in a frame at one end of the rope yard, and at the other end is the winch that turns the

There may be several patents for the same object, the means being different.

(d) It not unfrequently happens that this is the only kind of evidence of infringement which can be adduced; a court of equity will sometimes order an inspection of the premises and method of manufacture, for the purpose of ascertaining the processes actually pursued. But this will not be granted, unless good cause be shown for suspect-

ing an infringement; but a party is not to be compelled to disclose any secret which he may possess.

In the subsequent case of *Hall v. Jarvis* and *Francis Boot*, the plaintiff had a verdict on presumptive evidence of a different kind. *Post.*

bobbins; the rope-walk is longer than the strand. The desider- A.D. 1803.
atum in rope-making was to keep the yarns separate, and in a
certain state of tension before they were taken up into the rope;
the twist in the rope-walk commences at the winch; if the yarns
were all kept in a state of tension, none of the bobbins would
render more than is wanted at the twist; at the superficies more
of the yarn will be rendered than at the inner part.

Mr. Rennie dissects a piece of rope made on Mr. Belfour's
method; he takes an outside strand, and opens it; the yarn is
sometimes inside and sometimes outside; he says that never
would happen by Mr. Huddart's mode. He says, "I consider the
bobbin as a matter of course; it is of universal use in all manu-
factures that consist of threads; the mere bobbin is like lead or
iron, but the application of the bobbin with a spring to it appears
to me to be a material part of an invention for making ropes." The application
He then dissects a strand of Mr. Huddart's; the outside yarn of the bobbin
keeps its place throughout, and is longer by six inches than the with a spring to
strand; the second shell is not so long as the other by about an the making of
inch and a half, and so on to the centre yarn, which is the same ropes, a mate-
length with the strand. rial invention.

The evidence that has been adduced as to the value and utility
of Captain Huddart's mode of making ropes, leaves no doubt
that, by whomsoever it was effected, this improvement is a most
important one in the manufacture of cordage; but it is material
for your consideration, whether it be a new invention, and if it
be a new invention, whether this person, in taking his patent,
has embraced within it, as essential parts, any thing which was
a part of a prior invention communicated to the public before,
and to which, therefore, he had no right to any benefit.

On the part of the defendant, no witnesses are called, but it is Defendant's
said that this is not an original invention, and if it is, there is no case.
proof that we have violated it. It is no matter that the two pa-
tents profess the same object; the end proposed in Mr. Belfour's
invention is to improve the manufacture of ropes and cordage,
by making every yarn employed in the composition thereof bear
its proper and equal proportion of the stress. The description
of the invention of Mr. Huddart is a new mode or art of making
great cables and other cordage, so as to attain a greater degree of
strength therein, by a more equal distribution of the strain upon
the yarns; the one is a more equal proportion of the stress, the
other a more equal distribution of the strain.

As to the bobbins, they are not worth mentioning; the springs
and the tube are the things in which it should seem the princi-
pal originality of the invention consists. It is contended that
the springs are not an essential part of the invention: if they are
enrolled as an essential part, whether they are so or not, it would
certainly go to his patent, because no deceptive things are to be
held out to the public; those that are material are to be held out
The insertion of
any thing as im-
portant, which
is not so in fact,
will vitiate a
specification.

as material; according to the evidence of Mr. Rennie, they are material. He considers that they are material to regulate the tension. Mr. Huddart points out that his mode would be defective without springs. I will read to you first Mr. Belfour's, and then Mr. Huddart's. Mr. Belfour states how the end is proposed to be answered: he says, "I have introduced four springs into each reel, which springs are marked L, and should be made of iron or steel, about two inches and a half in length, one-fourth of an inch in breadth, and one-eighth of an inch thick in the middle, and smaller towards each end; two of these springs are fixed into each end of the barrel of the said reel in the inside; one end of each spring is fixed fast to the barrel of the reel, the other end is moveable, and is governed by a screw marked M, which, by being turned towards the right, closes the two ends, and thereby fixes the reel faster to the spindle; or being turned the other way, opens the two ends, thereby allowing the reel to move more freely." According to the greater freedom of the motion of the wheel, or the retardation of the wheel, the greater or less tension is produced. Now Mr. Huddart's specification is this: "at K a spring is fixed to the wooden arm, by means of a screw and nails, or otherwise; the screw works in the square part of the spindle, by means of which the spring may be made stronger or weaker, as requisite; the other end of which rests upon the globular part of the head of the bobbin, formed for that purpose to regulate the tension of the yarn in drawing it from the bobbin, whilst the spindle is turning in registering the strand." Here for a moment let us take our stand: the same end appears to be produced, according to my understanding, by the one and the other, to regulate the tension; now if it is a spring to regulate the tension of the yarn, which is essential to be regulated, it does seem to me, but it is for your judgment to say, whether, it is a material part of the invention: if it be a material part of the invention, and relied upon as such, as it should seem it is by both, and if it is the same, then that which has been communicated by Mr. Belfour, Mr. Huddart cannot take the benefit of.

Then there is another matter, with respect to the tube. Mr. Belfour says various other methods may be substituted for the purpose of preventing the strand from twisting until it has received that position the workman wishes, such as pieces of wood with holes bored in them; small machines, divided in a similar manner, or something like to the separating machine before described; or by the external application of a ring or other circular instrument; or any other shape so as to press upon the strand, and prevent its receiving an improper twist, to serve the purpose or intention of the top minor; for unless the strand is regulated in the twist, and kept exactly in the position in which it is to remain, the good effects proposed by this invention will

be in a great degree defeated; therefore, it is not of any consequence in what manner it is so regulated, so long as that point is accomplished. Now what Mr. Huddart says upon it, is this: "This disposition of the yarns is necessary previous to their passing through the cylindrical tube of metal in which the strand is compressed and formed." He says the tube compressing the yarns, and confining the outer shell to its proper figure, which outer shell compresses the next, and so on to the centre, there cannot be any crossing of yarns, or change in situation; but the whole strand formed close and compact, and no more yarn required from the bobbins than is necessary, according to the situations of the shells, or their distance from the centre. Now the tube does seem to me, with submission to you, an important difference from the mere circle through which it passes, because it keeps it in a degree of confinement for a greater time, and more certainly obtains the end pointed out in Mr. Belfour's specification; the same end is to be obtained; and had the patent been taken for that to be done by a tube, which was before done by a ring or circle, I should have thought the patent good, for that is a distinct substantive invention. It will be for you to consider, whether that which is pointed out in Mr. Belfour's specification will be broken in upon by a tube, which keeps it in a state of confinement for a longer time, and attains the end with more certainty. It is for you to say, for that is the substance of the case, as to the invasion of the patent, whether any essential part of it was disclosed to the public before. If you think the same effect in substance is produced, and that the springs in Mr. Belfour's, by producing tension, obtain a material end in the making of ropes in the way proposed, and that it is in substance the same as in the other, this patent certainly must, upon principles of law, fall to the ground. If you think it is not the same, or if you think it is not material, though we have had the evidence of Mr. Rennie upon its materiality—if you think this patent has been obtained for a new invention, carried into effect by methods new, and not too large beyond the actual invention of the party, in that case the patent may be sustained; but if you think otherwise, in point of law or expediency, the patent cannot be sustained.

The substitution of a tube for a ring may be a most material improvement, and a patent for such substitution good.

Verdict for the plaintiff. Damages, one shilling.

FORSYTH'S PATENT.

Letters patent, 11th April, A.D. 1807., to A. J. Forsyth, "for a *Title*. method of discharging or giving fire to artillery, and all other fire-arms, mines, chambers, cavities, and places in which gunpowder, or other combustible matter is, or may be put, for the purpose of explosion."

Specification.

I, the said A. J. Forsyth, do hereby declare that the nature of my said invention of an advantageous method of discharging, or giving fire to artillery and all other fire-arms, mines, chambers, cavities, and places in which gunpowder, or other combustible matter is, or may be put for the purpose of explosion, is expressed in the foregoing general description thereof; and the manner in which the same is to be performed is as follows, that is to say: First, as to the chemical plan and principles thereof. Instead of permitting the touch-hole or vent of the pieces of artillery, fire-arms, mines, chambers, cavities, or places, to communicate with the open air; and instead of giving fire to the charge by a lighted match, or by flint and steel, or by any other matter in a state of actual combustion, applied to a priming in an open pan, I do close the touch-hole or vent, by means of a plug or sliding piece, or other fit piece of metal, or suitable material, or materials, so as to exclude the open air, and to prevent any sensible escape of the blast, or explosive gas or vapour outwards, or from the priming or charge, and as much as possible to force the said priming to go in the direction of the charge, and to set fire to the same, and not to be wasted in the open air. And as a priming, I do make use of some or one of those chemical compounds which are so easily inflammable as to be capable of taking fire and exploding without any actual fire being applied thereto, and merely by a blow, or by any sudden or strong pressure, or friction, given or applied thereto, without extraordinary violence; that is to say, I do make use of some or one of the compounds of combustible matter, such as sulphur, or sulphur and charcoal, with an oxymuriatic salt; for example, the salt formed of dephlogisticated marine acid and potash (or potasse), which salt is otherwise called oxymuriate of potash; or I do make use of such of the fulminating metallic compounds as may be used with safety; for example, fulminating mercury; or of common gunpowder, mixed in due quantity with any of the before-mentioned substances, or with an oxymuriatic salt, as aforesaid, or of suitable mixtures of any of the before-mentioned compounds; and these compounds, or mixtures of compounds, I find to be much better for priming than gunpowder used alone, which cannot be made to explode without some sparks or actual fire applied thereto, or else without such a degree of extraordinary and violent percussion, as cannot conveniently be made use of in gunnery, or with any of the fire-arms or artillery that are in most general use. But it is to be observed that I do not lay claim to the invention of any of the said compounds, or matters to be used for priming; my invention in regard thereto being confined to the use and application thereof to the purposes of artillery and fire-arms, as aforesaid. And the manner of priming and exploding which I use is, to introduce into the touch-hole, or vent, or into a small

Claim.

and strong chamber, or place between the said touch-hole and A.D. 1807. vent, and the plug or sliding piece, or other piece by which the communication with the external air is cut off, a small portion of some or one of the chemical compounds herein before mentioned (for example, as for priming to a musket about the eighth part of a grain); and when the required discharge is to be made, I do cause the said chemical compound or priming to take fire and explode, by giving a stroke, or sudden and strong pressure to the same, communicated by and through the said plug or sliding piece, or other piece before mentioned or described, in consequence of which the fire of the priming is immediately communicated to the contents or charge placed within the said piece of artillery, fire-arm, mine, chamber, cavity or place, and the discharge accordingly follows.

And, secondly, I do hereby further declare, for the better *Mechanical means.* illustration of my said invention, and as auxiliary to the use thereof in relation to the mechanical parts thereof, that I have hereunto annexed drawings or sketches exhibiting several constructions which may be made and adopted, in conformity to the foregoing plan and principles, out of an endless variety which the subject admits of.

* * * * *

In witness, &c.

The invention claimed by this specification is, the application of these chemical compounds to be ignited by percussion to the purposes expressed by the title of the patent. The subject-matter of this and Hartley's patent (*ante* 54) may be classed together, each being for the application of a known thing to produce a particular effect. The preceding specification appears to be framed in strict accordance with the terms of the proviso of the letters patent; that proviso requiring the grantee particularly to describe and ascertain the nature of his said invention, and in what manner the same is to be performed. *Law and Practice*, Pr. F. XIII. a. 9. The portion of the specification printed above is in accordance with the former part of the proviso, while the annexed drawings are in compliance with the latter part of the proviso. The patentee having succeeded in an action for the infringement of this patent (*Forsyth v. Riviere, infra*), against a party using a lock of a different construction to any shown in the annexed drawing, the right of the patentee to the exclusive use and application of the detonating mixture as priming was

established, whatever the construction of the lock by which it was discharged. This is founded on the following important principle, which has been recognised in several subsequent cases, that a person who discovers a principle, and also some mode of carrying that principle out in practice, so as to produce or attain a useful effect or result, is entitled to protection against all other modes of carrying the same principle into practice for obtaining the same effect or result. See *post*, *Crossley v. Beverley*, per Alderson, B. in *Jupe v. Pratt*, and *Neilson v. Harford*.

Forsyth v. Riviere.

In this action for the infringement of the above patent, tried before *Abbott, C. J. &c.*, the plaintiff had a verdict. On the question of priority of invention, *Abbott, C. J.* held, that if several persons simultaneously discover the same thing, the party first communicating it to the public under the protection of letters patent becomes the legal inventor, and is entitled to the benefit of it. See *Chitty's Priv. Crown*, 182.

HALL'S PATENT.

Letters patent, 3d Nov. 58 G. 3, A.D. 1817, to J. S. Hall, of *Title*. Basford, &c., for a "method of improving every kind of lace or net, or any description of manufactured goods whose fabric is composed of holes or interstices made from thread or yarn, as

usually manufactured, of every description, whether fabricated from flax, cotton, wool, silk, or any other vegetable, animal, or other substance whatsoever."

Specification. The object of my invention is to remove from every kind of lace or net, or other goods of the description above mentioned, all superfluous and loose fibres, or ends of fibres, which are not so bound and twisted into the thread or yarn of which the lace or net or such other goods is composed, as to form a part of the solid body thereof. These superfluous fibres do not contribute to the strength of the thread or of the lace or net or such other goods as aforesaid, but form a kind of fur or wool around the threads, which makes them appear thicker than they really are, and also fills up the meshes, holes, or interstices, of the lace or net, or such other goods as aforesaid, and makes them appear indistinct and woolly. My method of improving lace or net, or such other goods as aforesaid, is by passing them through, or at a very small distance over, a body of flame or fire, produced by the combustion of inflammable gas, while the said flame, or the intense heat thereof, is urged upwards, so as to pass through the holes or meshes of the lace or net, or such other goods as aforesaid, by means of a current of air which is produced by a chimney fixed over a flame immediately above the lace or net, or such other goods as aforesaid. The action of the flame is to burn, singe and destroy as much of the said superfluous fibres or fur as may be removed without injury to the lace or net, or such other goods as aforesaid.

A long piece of lace or net, or such other goods as aforesaid, or several pieces united together so as to form a large sheet, is made to pass between two rollers mounted one over the other, like the rollers of a flatting mill, and the lace or net, or such other goods as aforesaid, are further to be extended over other rollers so as to spread part of the lace or net, or such other goods as aforesaid, in a horizontal position; beneath this part the flame is applied, and the rollers being turned round will cause the lace or net, or such other goods as aforesaid, to pass through or at a very small distance above the flame, so that every part of the piece shall in succession be subjected to the action thereof, and the velocity of the movement must be so regulated that the superfluous fibres of the lace or net, or other goods as aforesaid, will be acted upon in its passage through or over the flame, without having time to injure the lace itself.

It must be obvious that the rapidity of the motion must depend upon the nature of the lace or net, or such other goods as aforesaid, and the intensity of the flame. It is of course impossible to give any general description of the motion that will be applicable to different cases; a slight trial, however, will be sufficient in each instance to ascertain and regulate the velocity. A regular and uniform motion will of course be most convenient

and advantageous. The operation may be repeated as often as A. D. 1817. is found necessary to effect the required improvement of the lace or net, or such other goods as aforesaid, and the operation will be most readily effected if the two ends of the piece are united together, so as to form an endless band, which being extended over a system of rollers, will circulate about the said rollers when they are turned round, and so every part of the endless band will pass and repass continually through or over the flame. The apparatus for the production of the inflammable gas may be the same which is well known, and in use for the purpose of illumination. The gas is to be conducted in pipes to the machine, and to enter into a tube which is placed horizontally beneath the lace or net, or such other goods as aforesaid; when the lace or net, or such other goods as aforesaid, has been sufficiently operated upon by the flame acting on one side, the piece is reversed, and the other side is subjected to the action of the flame.

The drawing hereunto annexed represents a system of rollers to operate upon lace or net, or such other goods as aforesaid, by the flame of inflammable gas. (Description of the drawing.)

As the lace or net, or such other goods as aforesaid, will be somewhat discoloured by the operation, it may afterwards be bleached by any of the processes in common use. The operation is generally performed once before the goods are bleached; they are then half-bleached, and the operation repeated; the bleaching is afterwards finished. The above apparatus, or combination of machinery, is conveniently adapted for the purposes of the said invention; but I do not claim the exclusive use of any apparatus or combination of machinery, except in connexion *claim.* with and in aid of the application of the flame of inflammable gas to the purposes above described in this specification.

In witness, &c.

The subject-matter of the preceding patent is the improved manufacture of lace, resulting from singeing off, by the flame of gas, the superfluous fibres which hang about the thread, which process is called gassing the lace; and the specification describes the means by which the invention is to be performed. No objection was taken at the subsequent trial to the sufficiency of the specification, but only to the subject-matter of the patent.

Improvements in existing manufactures constitute a very large proportion of the patents which are granted, and it may be useful to point out some of the instances in which such improvements have been effected, by the application of some known substance or thing to the particular purpose of the improvement of the existing article.

The manufacture of cotton velvets was the subject of several successive improvements. The loose and uneven fibres were first removed by the use of razors; next they were singed off by spirits of wine; next by the application of a hot iron resembling a weaver's drying iron, and finally by drawing the goods rapidly over an iron cylinder heated to redness.

The manufacture of cloth has been the subject of many improvements. The shearing cloth from list to list by a rotary cutter, the cloth having been previously shorn from list to list by shears, and also from end to end by a rotary cutter, was held a separate and distinct invention. See *per Lord Tenterden, C. J., Lewis v. Davis*, 3 Car. & P. 502.

The immersion of cloth manufactured in the usual manner in hot water, according to Daniell's patent, improved the value of the cloth very greatly.

In the manufacture of paper, the conducting the paper against a hot cylinder, according to Crompton's patent, constituted a great improvement in the drying and finishing the paper.

It is important to consider these and similar inventions in respect of their final effect or result on the manufacture, since by this alone can the utility and importance of the invention be ascertained. See *ante* 71, *n.e.*, and Derosne's patent, *post*.

HALL v. JARVIS AND FRANCIS BOOT.

In the K. B. Dec. 17, 1822. Cor. Abbott, C. J.

Sir J. Copley, S. G. (*Scarlett, Denman, and Reader*), for the plaintiff.

The object of the patent for an infringement of which the present action is brought, is to improve the texture of lace and other articles of a similar description; till within the last twenty years, a great part of the lace used in this country was imported from abroad, but within that period such improvements have been made in the manufacture in this country, owing to the inventions of Mr. Heathcoat for making lace by machinery instead of by hand, that a large quantity of the lace now made in this country is exported. There still, however, remained one great desideratum in our manufacture of lace. The material used in this country was principally cotton, that used on the continent principally flax. The cotton was cheaper, and could be spun to a finer thread; but the cotton thread had the disadvantage of being covered with a species of wool, from which that spun from flax was free. The lace from flax was thus much clearer than that from cotton, which had a sort of whiteness, or fogginess, in its general appearance, to the great diminution of its value. It occurred to some, that this defect might be removed by the action of heat, which had been already applied to removing the same kind of unevenness from muslin, by passing it over rollers of hot iron, and from mits and stockings by singeing. It occurred to the plaintiff, Mr. Hall, that the flame of gas might be applied to this purpose, and he tried a pipe with a great number of perforations, so as to give a continued line of flame, over which the lace was passed, with a motion just rapid enough to singe the little fibres composing the wool, without injuring the texture of the lace. This first attempt, however, failed; although the texture of the lace was open, the flame would not pass through it; it was impeded by the law of nature, first discovered by Sir H. Davy, and since applied so admirably in his safety lamp, viz. that flame will not pass through wire gauze so as to communicate with the outward air. The wire gauze steals away the heat of the flame (a), and

(a) It should be observed, that this is strictly true only when the gauze and flame are steadily in contact, or brought slowly together. If a piece of wire gauze be brought down slowly, steadily, and horizontally, over a jet of flame, the flame will not pass through it; but if the gauze be brought down suddenly, so as to impinge as it were upon the flame, the flame will pass through. This is in strict accordance with another law of nature—that

in the destruction or communication of momentum, i.e. motion to matter, time must be consumed. The upward current which constitutes a flame, can only be diverted gradually, and if the gauze be brought into contact with it sufficiently rapidly, some of the flame will be forced through. The additional current upon which the success of Mr. Hall's invention depended, further illustrates the same law.

accordingly, in the safety lamp, the fire damp will pass through A. D. 1822. the wire gauze into the lamp, and there burn with a bright flame, but the flame will not pass out of the wire gauze so as to communicate with the outward air. So Mr. Hall found that the flame, though increased to a greater degree, would not pass through. This he obviated by the production of a current of air, by means of a narrow chimney above the line of flame, between which and the flame the lace was passed; the flame was thus forced through the interstices of the lace, burning away the fibres on their sides. The appearance of the lace is thus improved, its fabric is not injured, but rather hardened and improved; the greater part of the lace now used in this country is improved in this manner, and the exportation of it has in consequence increased to a very great degree (b).

The witnesses proved, that no means of effectually destroying the furs and fibres of the lace were known previous to the plaintiff's invention; that the method of singeing by means of hot rollers, as applied to the dressing of muslin, would not have answered for lace; that the improvement was so great, that it was quite impossible that if any effectual means of doing the same thing had been discovered before, it should not have come into general use; that since that invention the lace manufactured in England was greatly improved, both in beauty and value; that the trade in the article had greatly increased, both at home and abroad; that a large proportion of the lace made, and all the better sort, was gassed; that, with the exception of an inferior description of lace, called warped lace, the lace exported was such as had been subjected to the patent process; that various experiments, made by men of science, for doing the same thing in other ways, had all failed.

Evidence of novelty and utility.

As to the infringement:—That J. Boot had, some time back, proposed to a bleacher to enter into partnership with him, stating that he had a gassing machine, but could not use it for fear of being discovered, but that if he had a bleaching establishment, he could, under cover of that, use it, sending a little lace to be gassed by the patentee, with whom he had an account; that his machine was exactly like the patentee's; that he had got one of Mr. Hall's men, that worked in the gas room, to introduce him into the room, and had then taken a plan of the machine, and had one made exactly on the same plan; that different parts of the machine had been made by different persons, and at a distance; that J. Boot had pointed out to the witness where the machine spoken of was; the situation of it, and the precautions taken for preventing its being seen; and

Infringement.

(b) The learned counsel then proceeded to state the nature of the evidence which he should adduce, to prove the infringement, and the novelty

of the invention. There was no doubt as to its utility.

explained the manner in which he proposed to procure a supply of gas for his machine, without its being known to what purpose that gas was applied.

It was likewise proved, that both in the premises spoken of by the last witness, and in others occupied by the two defendants at a subsequent period, alterations had been made in the position of the gas burners quite inconsistent with the purpose of lighting the premises; that the gas fittings had been tampered with; and that, on the last-mentioned premises at least, a quantity of gas had been consumed quite beyond what could be accounted for by any consumption for the purpose of lighting; and that on J. Boot's being spoken to on this last head, he had either refused to give any explanation at all, saying it was nothing to the company how much he burned so long as he paid for it, or had given one that was quite insufficient and unsatisfactory. It was also proved, that on this defendant's premises, both those occupied by him at first, and those in which he was afterwards, part of the room had been partitioned off, and its windows blocked up, so as to exclude the view. The gas fittings were altered so as to introduce the gas into this apartment. A witness had looked through the key-hole, and others through an opening in the roof, made for that purpose, and had seen machinery precisely similar to that of the plaintiff.

It was proved, that lace left with the defendants to be dressed had been returned in the state to which it would have been brought by the application of the plaintiff's process; and that similar lace had been offered for sale by F. Boot, and that he had paid for the gas consumed.

The lease of the premises, to which the principal part of the above evidence of infringement applied, was executed by him, and he paid the rates and taxes. Some of the alterations in the position of the gas fittings had been made by his direction.

*Defendant's
case.*

Gurney (Gaselee and F. Pollock), for the defendants: The process is not new—fire, and even flame, having been applied to similar purposes before the plaintiff's invention; the mere doing that with the flame of gas, which had long before been done by means of other kinds of flame, cannot be the subject-matter of a patent. It will be proved that the fibres can be destroyed as well by spermaceti oil and alcohol, without a chimney, as by gas with a chimney. It had also (as appears from the evidence) been attempted to force the flame of charcoal through the interstices of the lace by a pair of bellows; but it must be admitted that flame has not been used in combination with a chimney above, so as to produce a current of air. [*Abbott, C. J.* The proving that will not affect the question.] If flame has been employed before and has effected the purpose, Mr. Hall cannot be entitled to this patent, because he is employing an agent not invented by him; the gas he employs has been in common use,

it has been known a considerable time. He cannot be entitled A. D. 1822. to the monopoly of the use of flame gas (c), because any man who has the use of that may use it as he pleases, nor can the plaintiff be entitled to the patent for having produced a current of air which is not new, because that is the principle by which the Argand lamp is constructed, by means of which the smoke is consumed (d).

Further, there is no evidence to connect the defendants in any joint act, or to show that the lace sold was gassed in conjunction.

The witnesses for the defendants proved that the flame of *Evidence for de-* charcoal, of waste paper, wood, shavings, or common pit coal, *fence.* had been used for many years to singe the fibres from silk, cotton or lace sleeves, but the articles for this purpose had been placed on a wooden leg or a sleeve board. That bellows had been used to force the flame against the article, which it was said would produce the effect of burning the interstices.

The jury intimated that they did not require any observations in reply.

ABBOTT, C. J.: There can be no doubt, gentlemen, your verdict must pass against both the defendants; one of them has the pipe laid into the house.

Verdict for the plaintiff (e).

CLEGG'S PATENT

Letters Patent to Samuel Clegg, 9th Dec., 56 G. 3, A. D. 1815, Title. for "An improved Gas Apparatus."

I, the said Samuel Clegg, do hereby declare, that my said *Specification.* invention of "An improved Gas Apparatus" is ascertained and described by these presents, and the drawings hereunto annexed, and herein referred to by way of illustration and example. My improved gas apparatus is for the purposes of extracting inflammable gas by heat, from pit coal, or tar, or any other substance from which gas or gases capable of being employed for illumination can be extracted by heat; for purifying the gas so obtained;

(c) It is not the monopoly of the flame of gas which the patentee claims, but the monopoly of using that flame to clear lace; that is, in substance, he claims the sole working or making of the new manufacture of lace called gassed lace.

(d) The specification does not claim this; it describes it as part of the means by which the flame of gas may be applied so as to produce the intended result. The concluding part of the specification is very important. *Ante*, 99.

(e) The court refused to disturb the verdict, and the patentee enjoyed the benefit of his patent during the whole of the term.

The fact of a patentee maintaining his patent against so large and extensive a combination as the lace trade, whose interest it would be to upset it, is the best evidence which can be afforded of its validity.

and for measuring out and distributing it to lamps, lights, or burners, where light or heat is to be produced by the combustion of the said gas.

One part of my invention is, a horizontal flat retort, in which coals or other materials capable of producing inflammable gas are heated, and the gas extracted by distillation. * * (a)

Another part of my invention is an improvement in the purifying apparatus to be placed in the vessels into which the gas from the retort is conveyed for the purpose of being purified by exposing it to the action of lime-water. * * * (a)

Another part of my invention is a Gauge or rotative Gas-meter, for measuring out and registering the quantity of gas which passes through a pipe or opening, so as to ascertain the quantity consumed by any certain number of lights or burners. This gauge consists of a hollow wheel or drum, capable of revolving vertically upon pivots, in the manner of a water wheel: the hollow rim of the wheel is made close on all sides, to form a circular channel, which is divided by partitions into certain compartments or chambers to contain the gas, which is introduced into the wheel through one end of its axis, and carried off from the wheel through the other end. By certain contrivances, it is so arranged, that each of these boxes or chambers will be filled with gas from the entrance pipe, and emptied of the same into the exit pipe, every time the wheel makes a revolution (b), by which means the number of turns the wheel makes (when registered by suitable wheel work) becomes a record of the quantity or number of boxes full of gas which has passed through the gauge. The gas is conducted from the place whence it is supplied, and enters into the gauge through one of its axes, and is conveyed into the chambers of the rim by certain hollow arms. The gas returns from the said chambers by certain other hollow arms, and is conveyed away through the opposite end of the axis of the wheel by the pipe which leads to the burners or place where the gas is consumed. No gas can pass from the pipe of entrance, at one end of the axis, and get to the pipe of exit at the other end of the axis, without entering into and filling the said chambers. A sufficient quantity of water is put into the hollow rim of the wheel, to fill a segment of the rim, rather larger in its capacity than one of the compartments into which it is divided; and there are passages of communication between the chambers through which this water can pass from one chamber into the next, but the gas cannot pass. It is evident, that the water from its gravity will always fill a segment in the lowest

(a) Here follows a general description of this part of the invention, and of the method of using it; a more detailed account being contained in the subsequent explanation of the drawings.

(b) The motion of the wheel, as is explained in

a subsequent part of the specification, is occasioned by the elastic force of the gas acting between a partition of the wheel and the surface of the water. Various other particulars are fully explained in the detailed explanation of the annexed drawings.

part of the wheel; and when the same turns round, the water will occupy each of the chambers in succession, as they arrive at, and during the time each one continues at the lowest part of the wheel; the pipes or hollow arms which convey the gas to the chambers are so contrived, that when the entrance pipe to any one chamber is open to admit the gas, the exit pipe from the same chamber will be shut or sealed up, and *vice versa*; and this opening and shutting of the passages into and out of any one chamber, takes place at that period of the revolution of the wheel when the water in the lower part thereof is on the point of entering into or going out from the said chambers: that is to say, when the water at the lower part of the wheel is on the point of quitting any chamber, the pipe of entry shall be open to admit gas into the said chamber, which gas expels the water from it through the passage of communication into the adjacent chamber, until the first mentioned chamber becomes filled with gas, and the second mentioned chamber becomes filled with water; at the same time the pipe of exit from the second mentioned chamber is opened, and the water which enters from the first mentioned chamber displaces the gas, and it passes off through the exit pipe.

The machinery for counting and registering the number of revolutions made by the wheel, may be constructed in any of the ways usually employed for similar purposes.

It is not essential to this gauge, that the exit pipe from the chambers be conveyed through the axis, the same effects may be obtained by enclosing the whole wheel within a close vessel or case, in which it can revolve freely, and allowing the gas to escape into the case from the chambers, when the same are to be discharged; from this case the gas can be carried off by the exit pipe. The means of opening or shutting the passages of communication may be varied; it may be done either by valves, or by sealing the pipes with water or other fluid (c).

Another part of my invention is "a self-acting Governor," for regulating the efflux or discharge of gas through any opening or openings, or burners, with an uniform velocity, or nearly so, notwithstanding any variations which may take place in the pressure which urges the gas to pass through the pipes of supply. * * * (d)

Having now ascertained my invention of an improved gas apparatus, and defined in what it consists, I shall proceed to describe the same, and to show, by the assistance of the drawings, in what manner it is to be performed; first observing, that the said drawings represent the apparatus in its most complete state, but that the arrangements of the parts, and the construc-

(c) See a further and general description of this part of the invention, by Brougham, on moving for a nonsuit, post, 112.

(d) Here follows a general description of the method of using this part of the invention.

tion of many of the minor parts, may be varied and modified according to the situation in which the apparatus is placed, and the circumstances governing the same, without at all deviating from my invention as I have defined the same. * * * (e)

In witness, &c.

CROSSLEY (f) v. BEVERLEY.

In the K. B., Mich. Vac. A. D. 1829. Cor. Ld. Tenterden, C.J.

Sir J. Scarlett (*F. Pollock, Alderson, and Godson*, were with him), for the plaintiff, described generally the introduction of gas, and the nature of the invention which was the subject of the preceding patent, and particularly the progress of invention in respect of the gas-meter, of which alone an infringement was complained. Soon after the patent was taken out, Mr. Clegg made a considerable improvement on the original invention, by contriving the chambers at the centre, whereby a valve, previously necessary, was dispensed with; the gas-meters made according to this improvement entirely superseded the others, and the infringement complained of is the making of these by the defendant. The question will be, whether this is an infringement of the patent. Now, if the invention consists in the serpentine tubes, or the particular modes described in the specification of supplying the gas through the axis, there is no infringement, but these are only the mechanical means, and the plaintiff claims any mode in which the hollow drum or enclosed cylinder may revolve round its own axis, such motion being produced by the filling the chambers alternately with gas and with water. The idea of measuring gas by causing the wheel to revolve, is entirely Mr. Clegg's own; that is stated in the patent; the contrivance may assume various shapes, and the patent, in fact, is for the discovery of the application of this method to practice, by whatever mode the result is produced.

Evidence for plaintiff.

The following facts appeared in evidence:—The gas must be made from the coal, purified, measured, and regulated in its supply to the burners. The apparatus is correctly called a gas apparatus, since it attains the four preceding objects, and was a complete apparatus at the time. The lime-water, under the old system, was extremely offensive, and difficult to be got rid of. The improvement in respect of that consists in using the lime in a more concentrated state, with less water, and therefore it

(e) Here follow the references to the annexed drawings, with the various details of description incident to complete working drawings.

(f) Crossley was the assignee of the preceding patent.

occasions less smell. The retort and purifier have been superseded by other improvements, but they were useful at the time. The specification describes two kinds of gas-meters, either of which may be used. The principle of the machine is the alternate filling of the chamber with gas and water, causing the machine to revolve; the passage which admits the gas being closed, while the passage which lets out the gas is open; one chamber is filling while the other is emptying, otherwise the wheel would not go round. That is the principle of the machine, without reference to the mechanical means of attaining the result—that each chamber shall be perfectly filled, and that no gas shall pass without causing the wheel to revolve. The specification shows a meter with two or three chambers; according to Mr. Clegg's subsequent improvements there are four chambers; the water is raised above the axis, and thus answers the purpose of cutting off the communication to the chambers below. The valve may be dispensed with, the water acting to prevent the passage of the gas from one chamber to another. In the improved machine, the rotary motion is produced by disturbing the equilibrium, and filling the chambers with gas and water successively, as in the old mode. The infringement complained of, is a close imitation of this improved machine. The principle of Mr. Clegg's invention is, the expansion of gas into chambers in which water is contained, so as to disturb the equilibrium, and thereby force the machine to revolve. That is to be effected as described in the specification, by sealing the exit while the entrance is open for the gas, and by sealing the entrance while the exit is open; and that the disturbance of the equilibrium may be perpetual, the introduction of the gas into one chamber should commence before its escape from another. These principles are applied in the improved machine, and in that made by the defendant.

It was known, before the date of the patent, as a philosophical fact, that other substances would yield inflammable gas, but it was a general opinion that nothing but coal would be cheap enough; it was never proposed, as of general application, to use any other substance than coal. The retort could not be used advantageously, if at all, for the making of gas from oil.

Lord Tenterden, C. J.: I think it quite clear, in this specification, when he speaks of coal and other matters, he means matters *ejusdem generis*. The patentee must be understood to mean things that were in use, and not things which would produce gas, as every thing inflammable would, but, from being so expensive, was never expected to be in use.

The terms of a specification must be interpreted according to the state of knowledge at the time.

Brougham: But he puts people to great trouble and expense by that.

Lord Tenterden, C. J.: No, he does not; for he never supposes that they will apply oil for the purpose of lighting towns

and rooms, because it was too expensive. A man must have the spirit of prophecy if he knows that people will apply those things to the purpose for which they were not considered applicable at that time.

Brougham: The principle upon which these cases had been decided is, although it was not known that oil could be employed advantageously to the lighting of towns or rooms, yet still, if it was known to be practicable, there is nothing to prevent persons from employing their time and money on it.

Lord *Tenterden*, C. J.: I suppose this would be applicable to extracting gas from spirits of wine or brandy, or spirits of turpentine.

Brougham: You must understand him to refer to those things.

Lord *Tenterden*, C. J.: No. I think he must be understood to refer to those things which practical men would employ. There may be a patent in existence with respect to oil, but it is quite clear that was not thought of at the time these drawings were made by this patentee. Going on contemporaneously, somebody might be doing it, and he might be evolving it in a manner perfectly distinct from the use of coal. It is a hard case to set aside the whole patent because there is some little matter in it which is not quite right. It is a hard case, and therefore one ought to see that the objection is applicable (*g*).

Defendant's
case.

Brougham for the defendant (*Rotch* and *Patteson* with him). The law of patents, as it stands, is very hard against patentees, and inventors have great difficulty in securing their reward, for skill, industry, and good fortune, must concur; but the law must be administered as it is.

The objection to the patent on the ground, that between the date of the letters patent and of the specification Mr. Clegg invented the hollow axle and the bent or serpentine tubes to be sealed with the buckets and the hoods, which are most material parts of the invention, must be disposed of elsewhere (*h*).

The specification must set forth the invention in all its particularity, in such a way that, without any further assistance or explanation, without any experiments to be tried, a party reading the specification, and bringing to that perusal competent skill, and an attention and deliberation proportioned to the complication of the subject-matter, may be able distinctly to understand it, and, if a workman, to carry it himself into execution. Such a party must not either be at a loss for want of further explanation, or puzzled or perplexed by the obscurity of

(*g*) The above ruling of the learned judge was not even adverted to in the motion subsequently made to the court for a nonsuit, and must consequently be considered as having established a principle of great importance in the protection of the privileges of patentees, since it not unfre-

quently happens, that the terms of a prior patent may be sufficiently comprehensive to include matters to which it was never intended to apply. *Post*, n. m.

(*h*) See *post*, 112.

the specification, and so reduced to inaction, nor must he be at A. D. 1829. fault for want of new experiments; the whole of the experiments ought to be performed by the inventor himself, and all the circumstances ought to have been so described, that without any more being written, a person of competent skill may be able to make the machine. The evidence for the plaintiff on this point, of such witnesses as Mr. Farey and Mr. Faraday, is not sufficient; the question is, whether an ordinary person, without their powers, could make the machine.

Further, it is essential, not only that the invention should be intelligibly described, but the process in all its parts must be successful; the patentee undertakes to guarantee to the community the use of all that he claims as his invention. If he sets forth five different things, and four of them be such as merit the highest panegyric, and are of the greatest benefit to society, and if the fifth be ever so trifling a part of the invention, but fail in either of the following ways, though the invention be truly described as to the other four, the patent is void as to these four, just as much as it is to the fifth (*i*).

Now, an invention may fail in two ways. A man may describe a machine, and say it does so much, the machine produces such a movement, and, however probable it may be on paper, whatever probability it has of succeeding in practice, nay, however it may do upon a working model before the specification is drawn, still, if when it comes into actual practice it is found not to produce that effect, there is an end of the patent. It may fail in another way, it may produce a movement, but a movement, like gold, may be bought too dear. It may be no advantage whatever when it comes to be used; a part of it may be found to be such, that though possibly the effect may be produced, which the inventor pretends to produce by it, yet it may be produced at such cost, with such loss of time and interruption of business, and other inconveniences, not taken into account when he originally stated this to be a new and valuable invention, that these are not sufficiently counterbalanced by the actual good which is obtained from it; and if upon the trial it is found the old way is better with all its disadvantages, then he fails, because it is not useful as regards that portion of the invention (*k*).

(*i*) The hardship of the law in this respect is in a great measure obviated by the statute 5 & 6 W. 4, c. 83, introduced by the learned counsel, and providing for the disclaiming or amending parts of the title and specification under certain circumstances. See *Law and Practice*, Statutes 5 & 6 W. 4, c. 83, s. 1, and notes.

The above exposition of the law by the learned counsel, must be limited to those cases in which the failure is such as leads to a false suggestion. It has been held in several subsequent cases, that

a partial failure under certain circumstances will not vitiate. See *ante*, 42, n.; and *post*, n. *k*.

(*k*) The two kinds of failures here stated would appear to have reference to different parts of the suggestion or consideration of the grant. The letters patent are granted on the suggestion or representation of the party, that he is in possession of an invention which will be of great public utility. If the invention fail altogether, in the manner first above mentioned, then the former part of the suggestion or representation is false,

Now, if any integral or material part of Mr. Clegg's invention be in either of these predicaments, either of not doing at all in the way described, or of doing inconveniently and disadvantageously upon the whole, and in such a way as no person in his senses, or with ordinary regard to his interest, would think of using it in; or still more if it should appear to be in both predicaments, there is an end of the patent.

I now purposely abstain from alluding to one part to which reference was made in my cross-examination, namely, with respect to the oil. His lordship has expressed a strong opinion that the specification must be taken *secundum objectam materiam*, and that it must be taken *ejusdem generis*, and that the use of the word "tar" (l) does not control the subsequent particulars under the head of the retort, and therefore my showing that it was incapable of being applied to oil, would not avail (m).

The want of a condenser is a material flaw in the specification. It is quite well known that the ammoniacal liquid which is distilled off from the coal or other materials from which gas is produced in the course of the distillation, that is, when it gets to the cooler part of the pipe, naturally condenses and impedes the operation for a certain time, and in order that the operation should go on at all with ordinary convenience, a vessel must be provided to contain the tar which is thrown off, and which, if not condensed, tends still more to choke the pipe. This can be condensed in a separate vessel by means of the pipes, or by means of a tar cistern, or by means which have been more generally and more correctly called the condenser, as applied to the ammoniacal liquor, as well as the tar, otherwise in the course of a very short time the tubes will be choked up, and the operation cannot be continued at all (n).

the party being in possession of no such invention. If the invention fail in the manner secondly above mentioned, the latter part of the suggestion is false, since that which he has done is not of public utility.

The Court of Exchequer, in the subsequent case of *Morgan v. Seaward*, intimated, that an invention which was useless might be considered as mischievous to the state, to the hurt of trade, and generally inconvenient, since all improvements thereon would be in abeyance until the expiration of the patent for such useless invention, unless by arrangement with the patentee.

(l) See specification, *ante*, 103.

(m) This point was not alluded to in the subsequent motion for a nonsuit, so that the ruling of the Chief Justice in this respect may be considered as the established law on this point.

The true principle would appear to be the intention of the party at the time, first as expressed distinctly on the face of the specification; and secondly, as may be inferred therefrom, according to the state of knowledge at the time, and other attendant circumstances. If a patent be vitiated by reason of its not applying to matters of subse-

quent discovery, it would appear to follow that a patent may include matters of subsequent discovery, if its terms be sufficiently general and comprehensive. It would appear to follow also that the omitting or changing a particular process or operation, as effecting by two processes that which had been previously done by three, or the obtaining an improved result by one particular order or sequence of processes instead of another, would not be the subject-matter of letters patent, all these having in fact been done before.

(n) The evidence to this was as follows: "The gas apparatus described in the specification is not a complete apparatus, for want of a vessel to receive the tar and ammoniacal liquor which rise up to the mouth of the retort, and must be condensed and conveyed away. The usual apparatus for this purpose can be applied without modification to Clegg's patent."

Lord Tenterden, C. J.: "The patentee does not claim to leave that out."

Brougham: "He claims the process from the putting in of the coal."

Lord Tenterden, C. J.: "I do not know that he does; there is a certain mode pointed out, but he

The principal objection is the mechanism of the retort itself; A. D. 1829. there can be no doubt that this would succeed in a model, but when it came to be attempted on the larger scale in practice, defects which were not anticipated showed themselves, and these retorts were abandoned after great expense had been incurred. These were disused not in consequence of improvements subsequent to their invention, but from their own demerits (o).

The gas-meter, as described in the specification, did not come into general use, but was so cumbersome and inconvenient that it was not profitably employed until the subsequent improvements by Mr. Clegg, and one of which is admitted to have been suggested to him by another person. Now though it was made by the patentee for his own use, yet if it was made at so great an expense, and of so complicated a nature, that it was found not to be worth the trouble and cost attending it, until altered by these subsequent improvements, the plaintiff's patent cannot be sustained in respect of this part of the invention.

Sir J. *Scarlett* in reply: The defendant has failed entirely to *Reply*. show that the specification is not sufficiently plain for a workman to make a machine; all the witnesses state or admit its sufficiency.

With respect to the objection to the retort, no evidence is given to show how often the old retorts burnt out, or to contradict the evidence that they frequently burnt out in a fortnight, and on an average did not last six months: that one of Mr. Clegg's lasted thirty-six months without being renewed, and it is admitted that the retort on a small scale is of great utility. The subsequent improvement of Mr. Clegg is only another mode of applying the same principle; had this not been described it would have been a fraud on the public, since the patentee is bound to communicate the best and simplest mode of practising the invention. It is no objection that the gas-meter was not brought immediately into general use; it was many years before the public could be prevailed upon to adopt gas, and the meter was invented two or three years after gas works were set up (p).

does not say that you are to dispense with the use of that which was previously known, the tar cistern, to condense the tar and ammoniacal liquor; he does not say you are to dispense with that."

A witness for the plaintiff stated that the apparatus described was a complete and perfect gas apparatus at the time: that condensers have since been applied between the retort and the purifier, but they were not then known. The principle laid down by the learned judge is not affected by this fact. The thing might have been so well known to all persons of practical experience in making gas, that it need not be mentioned. This point was not adverted to in the subsequent motion for the nonsuit.

(e) According to the evidence, these retorts produced a larger quantity of gas and of better quality from the expenditure of the same quantity of fuel,

and lasted longer, than the other retorts; they were adopted at several places, but superseded in consequence of an improved mode of setting the old retort; from which and other causes they could be erected at one-third of the expense at which they were erected at the time of the plaintiff's invention. Their manufacture was also improved, so that they became more durable. That the old retorts, according to the old mode of setting, frequently burnt out in a fortnight, and on an average did not last more than six months, whereas one of the plaintiff's lasted thirty-six months, with occasional small repairs.

It appears to have been admitted that plaintiff's retort on the small scale was of great utility.

(p) It was in evidence, that the first gas works were erected in London in 1813, on the model of the works in Lancashire.

Now it is admitted to be an invention of great genius, skill, and knowledge, and that the defendant has imitated it; no objection is made to the governor or to the purifier; the only question is as to the retort, and the defendant must prove this to be of no utility to entitle him to the verdict.

The jury, with the concurrence of the learned judge, without hearing the summing up, found a Verdict for the plaintiff.

CROSSLEY v. BEVERLEY.

Hil. T. A.D. 1830, *Cor. Lord Tentarden, C. J., Bailey, J., Littleddale, J., and Parke, J.*

Motion for a nonsuit.

Brougham moved for a rule to show cause why a nonsuit should not be entered. The improved gas apparatus, the subject of the patent, consists of four several parts; a retort upon a new construction, a purifying apparatus, a gauge, or rotative gas-meter, and a self-acting governor. No question at all material to the present motion arises upon any of them except the third, the gas-meter. It appeared that the object being to measure successively the portions of gas which should be introduced into any burners or lamps from the reservoir where the gas was kept, or from the furnace where the gas was originally evolved, that purpose was accomplished in this way: a drum or hollow wheel, or hollow cylindrical vessel, was filled successively with gas, and, by a contrivance, the gas was let out in portions equal of course to the solid contents of that cylinder, and then by a clock work movement of some sort, which is no part of the invention, the number of the revolutions of the cylinder was registered, so that at any interval of time (very long intervals as well as very short) the number of revolutions the cylinder had performed could be told; it is so contrived that at each revolution it should be completely emptied of the gas. If the number of the revolutions of the cylinder be registered, it follows of course the quantity of gas which had been consumed in the time would be known. Every thing, therefore, depended upon giving a rotary motion upon its axis to that cylinder, and upon expelling the gas fully each time that a revolution of the cylinder was performed. This is stated in great detail in the specification, and illustrated by figures; and the means upon which every thing depended, the means in the first place of giving the rotation, and in the next place, of completely expelling the gas at each revolution, are laid down in the specification. The contrivances for that are certainly of considerable ingenuity. At the proper periods of the revolution, the hollow arms conveying the gas are to be sealed, as it is called, that is, filled by water carried in

buckets, which at a particular period of the revolution become inverted, and pour the water into the hollow arms so as to seal them, and thus cut off the communication at the proper part of the revolution. There are also hoods to cover the opening in the outer rim at proper places and proper times of the revolution, so that the effect is produced of completely expelling the gas, and always securing that at each revolution the gas which had been taken in to fill the partition should be expelled, and that the water should only come in at the proper time, and that the water should be expelled at the proper time. *Motion for non-suit.*

The objection to be taken to the validity of this patent depends entirely upon this part of the invention. That which does not often occur in patent cases occurs on this occasion, and from its so seldom happening arises the fact, which is undeniable, that the objection now made has hardly ever been made before. As the action was brought not by the patentee, but by the assignee of the patent, the patentee himself was examined. There was a difficulty as to a release under the assignment, but that was effected, and he became a competent witness. It appeared in his examination, that though he had in his mind the general idea of a rotary motion, of the measuring of gas by a drum or hollow cylinder, and of conveying a rotary motion to the hollow cylinder by introducing the gas inside, and disturbing the water in which the cylinder was placed, so as to alter its centre of gravity, and occasion and give a beginning to the motion which was afterwards kept up; that though he had that in his mind at the time when he applied for and obtained his patent, yet that between the date of his patent and the enrolling of the specification, he had made three material inventions, of all which, taken together, the gas apparatus consisted. He invented the buckets, and the sealing by means of those buckets; he also invented the hoods at the same time that he invented the buckets, and the sealing by means of the buckets; and though it did not appear so distinctly, it rather appeared, upon the whole of his examination taken together, that the hollow axle was invented nearly about the same time, and subsequent to the grant of the patent.

Great reliance in the whole cause was placed upon the hoods, and for this most obvious reason—that it was therein the imitation had taken place.

Now though it is not necessary that an inventor, when he applies to the crown for a patent, should have stated in writing, or, according to the language of the grant, “ascertained in writing,” the whole of his process, or have reduced it to writing, or put it into words, he must have had in his mind the idea of the whole of the process, of the whole of the machine—if it is a machine, which in the present case it clearly is—so that he can state to the crown in his petition with truth and

Motion for non-suit.

correctness, and upon which statement the patent is granted to him, that he has invented that of which he claims the sole and exclusive use during the time. It is needless to point out the consequences that would follow if a man were only to go with a rough idea in his mind, and say he had formed an idea in his mind, and it is very probable he might have invented the main part, it is very probable the whole of the principle might be in his mind and familiar to his thoughts, when he stated he formed the invention; but he must have invented the manner in which that purpose is executed; he must, to use the words of the specification, have invented the contrivances by which it was so arranged that each of these boxes or chambers will be filled with gas from the entrance pipe, and emptied of the same into the exit pipe, every time the wheel makes a revolution. There are two figures; the one called figure 10 was the one which alone appeared ever to have been usefully employed, the figure 12 having been one of great complexity. [Lord *Tenterden*, C. J.: It was upon the same principle, but more complex.] He says in his examination, he had invented the scrolls, the complex one before the patent, but the other one, which was a very great improvement upon the other (that there was not the least doubt of), which alone has ever been used, the other being found useless from its complexity; the simple and ingenious contrivance for accomplishing its purpose of successively filling and emptying, by means of sealing and opening the tubes at the several times of the revolution; that was figure 10, and it was quite clear that had occurred to him after the patent was obtained, and between that and the enrolment. [Bailey, J.: He knew at the time he took out the patent he had discovered a new method; but between the time when the patent was taken out, and the time he made out his specification, he discovered certain improvements.] Certain improvements which he added to it, and which he makes a part of the specification. Now if any thing is added to a specification which is at all different from, or an addition to, the patent, of course the specification is void as to that, and is void as to all; but it is also perfectly clear, and it has been so held, that if, for any thing in the specification the patent would be void, the patent would be void for the whole (a).

Now it signifies not whether any thing is void in the specification, on account of its not being new, or on account of its not being useful, or on account of its not answering the description; these are all grounds upon which its invalidity would be clear, but it signifies not whether those be the grounds of the invali-

(a) The learned counsel referred to *Hill v. Thompson*, 3 Mer. 622; *R. v. Wheeler*, 2 B. & Ald. 349; and *Brunton v. Hawkes*, 4 B. & Ald. 541. These patents were void on the ground of false suggestion; but there would be no false sugges-

tion in this case, provided the patentee had invented a gas apparatus which would have acted, however greatly improved an application of the same principle the one subsequently invented might be. See *ante* 42, n. and *per Littledale, J. post.*

dity of any part comprised in the specification, or whether it is void upon any other ground. Now I submit it would clearly be void equally if it is in the specification and had not been invented at the time the patent was granted, because the patent is only granted for that which is invented at the time the application is made. The inventor petitions the crown in the words that are always used, and which are set forth in the declaration: "he represented that he had, after considerable application and expense, invented an improved gas apparatus, which invention he believed would be of general benefit;" and upon that the crown granted him the exclusive use of that invention for a certain time, but it was upon the condition that he should specify what it is he had invented. He can only specify that which he had invented, but he specifies beyond what he had invented—for instance, the buckets and the hoods; if he specifies the buckets and the hoods beyond what he has invented, *pro tanto* it is void. He has no machinery of the buckets or the hoods; the specification, therefore, *quoad hoc* is void, and, therefore, according to the principle in *Hill v. Thompson*, the whole is consequently void. Indeed it would appear in this case that the whole consisted in the contrivances. The way in which the purpose was executed was here every thing, for the whole is a gas apparatus, and, although one mode of accomplishing his purpose might have been known at the time he applied to the crown, and, therefore, with regard to that, he may be said not to have deceived the crown in his statement, because he had invented that at the time; but when he afterwards adds another, as if it was part of his original invention, it is a deception which, if practised, it signifies not either upon the public subsequently, or upon the crown in the application, is equally a deception, because the person is only to specify that which he had invented before. [*Bailey, J.*: You say this—that if a man improves upon the thing for which the patent is taken out, between the period of time when the patent is granted and the specification, he must either take out a new patent, or he must keep to himself that improvement.] Certainly, because, in fact, the specification is the description—that is, he describes and specifies the whole of the invention for which he obtained the patent. He might be called upon at the time for a specification, and may, in certain cases, in consequence of a caveat, be called upon to give every one figure of his patent. I am quite aware that is not what is constantly done—on the contrary, I may say, the opposite practice is more frequent (*b*). [*Bailey, J.*: Would it not be an objection to the

(*b*) The object of the law officers of the crown, in cases of this kind, namely, the ascertaining whether the inventions of two rival applicants are the same, or sufficiently distinct to support separate letters patent, would, it is conceived, rarely require

the detailed account here stated. The first question in this case would have been, whether the invention of the opposing party possessed the peculiar feature of measuring the gas by the rotation of a vessel, and the alternate filling of its chambers

Motion for non-suit.

patent, that you, having taken out your patent for a new apparatus for making gas, had, before you came to your specification, discovered some important improvements in that apparatus; would it not be bad if you did not specify those improvements in your apparatus, but were merely confining your specification to what was your knowledge at the period of time at which the patent was taken out?] I do not see how that could be a fatal objection, and for this reason—I take it, that, strictly speaking, the whole must be considered one exposition, and at the time the party applies to the crown, he may be called upon to specify the whole; for, suppose a caveat is entered, he would have to go before the Attorney General, and the Attorney General may call upon him then and there to state every part of his invention, and to give very minute information of it. Time is given to him in order to prepare it by reducing it to writing. [*Little-dale, J.*: That general statement of his invention upon which he first applies to the crown, is equally applicable to the present specification, and to what the specification would have been if he had merely put down what was passing in his own mind at the time of the specification; the description of the patent is the same.] It is applicable to it as far as it goes. [*Little-dale, J.*: The description of the invention upon which he first applied would not have been varied.] No, because the description is so general—it is “a Gas Apparatus.” [*Little-dale, J.*: And, therefore, it is something which is passing in his mind, and which he never discloses to any one until he exhibits a machine of the power of ten, and when he applied for a patent it had only a power of five.] He applies for a patent for one thing, and he specifies that, and one or two other things, which other things I admit will come under the same general principle. [*Lord Tenterden, C. J.*: And all founded upon the same principle.] Founded upon the same principle, but different contrivances for carrying the principle into execution. [*Lord Tenterden, C. J.*: Different mechanical contrivances for carrying it into effect.] And some of those contrivances he had invented between the grant and the specification. They are new inventions, and they might have been the subject-matter of a new application for a new grant.

Lord TENTERDEN, C. J.: That would have been less beneficial to the public, because it would have prolonged the time of the monopoly. The objection really would come to this. If at the time a person applies for the patent, he has in his mind an invention capable of producing the effect which he represents it

with gas and water; such rotation being due to or produced by that alternate filling. The next question, supposing both parties to have hit upon this principle, would have been as to the particular modes, and then the particular question of the

hoods might have arisen, for neither party could have had a patent under these last-mentioned circumstances, except for the particular mode of applying the principle. See *Law & Practice, 1st. ed. ltit. Opposition.*

to be capable of producing, and has brought that invention to a great degree of perfection, and within the time allowed by the patent for exhibiting the specification, and before the arrival of that time, he perfects his invention, and renders it more complete by the introduction of a different species of machinery, by the application of that to different mechanical parts of the machine, if so, whether that will make his patent void. No case has ever decided that, and I think it would be extremely dangerous to lay down any such doctrine. I do not see myself why time is allowed to prepare the specification, except upon the idea that the person, at the time he took out his patent, has not brought his machine, or whatever he has invented, to that degree of perfection which it may be supposed he is capable of bringing it to, and, therefore, he is allowed further time to do it. If in the interval another person should have hit upon that which he has hit upon, that patent will not be for what in the mean time has been discovered by another person. He runs all those hazards by the delay, but if during that delay the invention was perfected, and approaches to a perfect accomplishment of the object which he had originally in view, I own I do not see that can be any objection to the patent.

Time is allowed for the specification, in order that the invention may be brought to the greatest degree of perfection.

BAILEY, J.: I think the specification and the patent are to be taken as one muniment in enforcing this claim on the part of the patentee, and they only. The specification, with new improvements, would still be the thing for which the patent was obtained, and I think it is most beneficial to the public to say, that it is the duty of the inventor, if between the period of taking out the patent and enrolling the specification he makes discoveries which will enable it better to effectuate the thing for which the patent was obtained, not only that he is at liberty to introduce them into his patent, but that it is his bounden duty so to do, and that it is not sufficient for him to communicate to the public the knowledge which he had at the time he obtained the patent, but he ought to communicate to the public the knowledge he has obtained before the specification; and, therefore, I am of opinion, in this case, the objection which has been taken to this patent is not to be supported.

The letters patent and specification are to be taken as one instrument.

Improvements made during the interval for specifying should be described.

LITLEDALE, J.: I am also of the same opinion. This patent was taken out for an improved gas apparatus, and at that time the inventor has something in his mind which he considers will be a benefit to the public, and he applies to the crown upon that prospect which he has of doing something from which the public are to derive a benefit. He is allowed a certain time to make out his specification. He may be called upon by the crown to do it immediately, but, however, time is given. In the mean time, something contributing very materially to the improvement of that comes into his mind, and before his specification is made out, he finds that will answer, and he introduces it into

his specification. Now, it can only be upon a very strict technical rule, that the addition in the specification to what was passing in his own mind when he applied for the patent, would render that specification, and the patent which was obtained upon that, entirely void. It has been held, that if a man applies for a patent for two things, and he is not the inventor of one, or there is some objection to one of them, the whole is void, because it is considered he is making an unfair representation to the crown, and the crown grants him that patent upon that representation; that is unfair, and if any one part fails, the whole is to fail also. That, however, appears to me to be only a technical rule, which has been intended to prevent frauds in obtaining patents, or for some other reason, but it is merely a technical rule and there is no reason why it should be carried further than it has been. For the same reason, if he takes out a patent, it may be, if the specification is bad in part, that part of the specification which is bad for any reason, may vitiate the whole, and render the whole void. But in this case there is no deception practised on the crown, because he intended really and *bona fide* to give a gas apparatus. There is no deception practised upon the public, for the public, until the specification was enrolled, are unacquainted with the mode in which that is to be carried into effect. It is merely floating in his own mind; his mind has got into an improving state, and his mind is able to give an improvement that I will call five, and from day to day, as he puts this machine up to see if it will answer, and see that the specification is right, he finds from day to day that five will increase to seven, or eight, or ten. Surely it would be a hard thing upon him, if when he has made this improvement of double value, or if having given a double mode to the public, that the whole should be rendered void, and he should be deprived of the benefit, because he had not communicated the whole of what was passing in his mind at the time the patent was taken out. I must own I think it would be an extremely unjust thing if it were so, and I know of no principle of law upon which it should be so decided.

PARKE, J.: I was concerned in this cause when at the bar, and therefore I will give no opinion upon it.

Rule refused.

The insertion of improvement made during the interval for specifying, no fraud either on the crown or the public.

The principle of the above decision is, that there was no false suggestion; but the form of the proviso, and the necessity under which the patentee is placed to forego experiments requiring the assistance of others until the patent is sealed, may be referred to. The proviso requires that the party should describe and ascertain the nature of the said invention, and in what manner the same is to be performed. In a large class of cases, of which

the above is one, the nature of the invention may be the application of some general principle admitting of an infinite variety of mechanical or other means in the carrying it out into practice.

It should also be remembered that the proviso is of recent introduction (*Law & Practice*, Pr. F. XIII. n. 9.), the common law only requiring that the party should be able to practise his invention beneficially for the public. *Ante* 8.

CROSSLEY v. BEVERLEY.

Cor. Lord Lyndhurst, L. C.

The bill having stated the plaintiff's title, and the result of the proceedings at law in the preceding action, alleged, that communications had taken place between the parties respecting coming to an account as to the gas meters made and sold, and now on hand in a finished or unfinished state, but that no satisfactory account had been received, and that defendant still had in his possession or power a large quantity of gas meters finished or unfinished, and which he intended to sell for his own profit, and prayed an injunction.

*In Chancery,
4th Dec. 1829.*
Injunction granted to restrain the sale of machines piratically made during the patent.

It was suggested that the defendant had a large stock of gas meters, which, on the expiration of the patent in a few days, would be thrown on the market.

Injunction granted.

CROSSLEY v. DERBY GAS LIGHT COMPANY.

Cor. Lord Lyndhurst, L. C.

This was an application for an injunction to restrain the Company and another defendant from infringing the plaintiff's patent.

*In Chancery,
4th Dec. 1829.*

Injunction granted.

Cor. Sir L. Shadwell, V. C.

Ordered, that the injunction granted in this cause be continued, and that the same do extend to restrain the defendants, the Company, from using the gas meters made during the term of the letters patent, which expired on the 9th day of December, 1829; and that it be referred to the Master to take an account of what profits have been received, and what benefit derived, from the use of such gas meters as were made or manufactured during the existence of such letters patent, for six years previous to the filing the plaintiff's bill down to this time; and that the defendants, the Company, pay to the plaintiff what the said Master shall certify to be due on taking such account, together with costs, &c.

*10th March,
1834.*
Account ordered of profits made from use of meters made during the patent.

Cor. Lord Brougham, L. C.

The defendants appealed against so much of the decree of the Vice Chancellor as required an account and payment, without

14th Nov. 1834.

first requiring the plaintiff to establish his title at law against the petitioners, and also against the nature and extent of the account thereby directed.

Lord BROUGHAM, L. C.: The validity of the patent must be taken as fully established; but whether the account should be had as directed, was another question.

A party having a right must not lie by, and afterwards claim a share in the profit. It was a principle of equity, that a party who claimed a right should not lie by, and, by his silence or acquiescence, induce another to go on expending his money and incurring risk, and afterwards, if profit has been made, come and claim a share in that profit, without ever having been exposed to share in the losses which might have been sustained. Upon this the defendants rely: but it was to be considered, on the other hand, whether the plaintiff did not explain the delay which has taken place, and whether the conduct of the defendants has not been such as to lull the plaintiff's suspicions to sleep. It appears that in 1821 the defendants bought two gas meters, and afterwards paid for a license to use another gas meter, and applied for a badge to put on the meter. They had prevented any person from having access to their manufactory, and all along denied that they were guilty of any infringement on the plaintiff's patent. The invention was not profitable till 1824, and from that period till the filing of the bill, the plaintiff had frequently conferred with his solicitor; but it was not till 1829 that he had been able to obtain sufficient evidence of infringement of his patent by the defendants. Under these circumstances the delay is explained, and the decree of the Vice Chancellor must be Affirmed, with costs.

The Master having, by his report, proved and certified certain facts, and that the benefit, including profit received, derived by the defendants from the use of such gas meters as were made and manufactured during the existence of the letters patent, from six years previous to filing the plaintiff's bill down to the date of the decree, amounted to the sum of 6000*l.*; several exceptions were taken to it, and being heard before the Master of the Rolls (6th May, 1837), his lordship made an order referring it back to the Master to review his report, with a direction that he should state the grounds

upon which he came to the conclusion which he might arrive at.

The plaintiff having appealed against that order, Lord Cottenham, L. C. dismissed the appeal with costs. The judgment on the appeal is fully reported in 3 Myl. & C. 428; it relates entirely to the method of taking an account of profits under circumstances of the peculiar nature of the present case, the question being simply, whether the Master had properly taken the account referred to him by the decree.

JONES'S PATENT.

Title. Letters patent, 10th Oct. A.D. 1826, to Theodore Jones, for "a certain improvement or improvements on wheels for carriages."

Specification. I do hereby declare the nature of my said invention to consist in an improved construction of carriage wheels, of such nature, that the weight which they have to carry is suspended

part of the wheel which happens to be uppermost, being supported as is usual by the spokes which be under the axletree; and I do hereby describe the which my said invention is to be performed by the escription thereof, reference being had to the drawing and to the figures and letters marked thereon.

* * * * *

whereas the wheels in general use for carriages are constructed with spokes, in such manner that the spoke that happen to be under the axletree contribute to the the weight or load.

whereas I hereby claim as my invention, and declare that no invention or improvements on wheels for carriages constituting suspending rods made of iron or other suit-in lieu of spokes, by which suspending rods I hang the weight or load from that part of the wheel which be uppermost, and prevent any support being given to weight or load by the rods which happen to be under the axletree.

In witness, &c.

JONES v. PEARCE.

Sir L. *Shadwell*, V. C. 10th Aug. A.D. 1831.

on for injunction, and after hearing counsel on both *In Chancery*. the defendant undertaking to accept a declaration, as of the last Trinity Term, and to keep an account of received by him in respect of his having made or plaintiff's improvements, it was ordered, "that the defendant be at liberty to bring such action as he shall be advised, and defendant is according to his undertaking to accept on and to plead as of last Term, and keep such account as aforesaid; and that this motion stand over until after the day of such action, and either of the said parties to be to apply to this court as there shall be occasion."

cification proceeds to describe the construction of wheels with one and a half or suspending rods; and the mode of arranging the suspending rods. The wheel was pierced by conical holes, the end of the suspending rod fitted into the other end of the suspending rod, and a cylindrical hole in the nave was divided into as many separate com-

partments as rods), and a nut being screwed on the end of the rod in each compartment, the rod was fixed in its place. These nuts were prevented from unscrewing by a plate called the shield, which was placed in front of the nave, in contact with their edges. These suspending rods could recede slightly in the nave on a pressure being applied at the end in the rim.

JONES v. PEARCE.

Cor. Patteson, J. Trin. Vac. 1832.

The declaration assigned as breaches—That the defendant made and sold divers wheels for carriages in imitation of the said invention; made divers, &c. on the said improved plan, and in imitation of the said invention; used and put in practice divers, &c. on the said improved plan, and in imitation of the said invention; counterfeited the said invention, and used and put in practice divers, &c. on the said improved plan, and in imitation of the said invention; imitated the said invention, and used and put in practice divers, &c. on the said improved plan, and in imitation of the said invention; imitated in part the said invention, and used and put in practice divers, &c. on the said improved plan, and in imitation of the said invention; made divers wheels for carriages with certain improvements on the construction thereof respectively, intended to imitate and resemble, and which did imitate and resemble, the said improvements so invented by the said plaintiff as aforesaid.

Plea—Not guilty.

Plaintiff's case.

Sir James *Scarlett* stated the plaintiff's case, and described his wheels as made entirely of iron, and on the principle of suspension, that is, the weight (in consequence of the spokes or rods being made without shoulders or mortisings at the parts where they entered the box or nave, which allowed them on the least pressure from the revolution of the wheels to slip upwards into the nave) was suspended from the upper parts of the wheel.

Novelty and utility.

The witnesses for the plaintiff stated, that the plaintiff's wheel was constructed on the suspension principle, by relieving the lower rods or spokes from pressure, and bringing tension on the upper ones; and that they had never known the principle usefully employed, or heard of any invention of the sort in use, except for water wheels, previous to the plaintiff's patent. That the conical heads and the nuts were important features of the invention, and a well-contrived nicety; that felloes of wood would be destroyed in a very short time; that the wheels possessed great lightness and durability, and were getting into very general use; that one firm, by a contract with the plaintiff for the supply of wheels, would save as much as £187 a year. On cross-examination a model wheel was produced, which witnesses admitted to be on the same principle as the plaintiff's, which principle (in the words of the specification) consisted in the use of iron or other metal rods in lieu of spokes, by which is hung or suspended the weight or load from that part of the wheel which happens to be uppermost, and prevents any support being given to the weight by the rods which happen to be immediately

under the axletree; but stated that a wheel constructed according to that model could never be used; that it would break to pieces; if it could be used it would be an infringement of the plaintiff's patent; also, that the plaintiff's specification was applicable to both wheels, but that the plaintiff's would be more secure; that the only difference appeared to be, that in the plaintiff's the nuts have separate cells, and the rods go quite through the fellie.

The plaintiff's foreman stated that he saw at the defendant's premises a pair of gig wheels like the plaintiff's, made on the suspension principle; the fellie, however, was of wood, bound round with an iron tire or rim. The nave was of wood, bound with wrought iron. The spokes or rods were without shoulders at the outside of the nave, but within they were fastened with nuts. The suspension principle was the same as the plaintiff's, but the nuts were not divided into cells like his; nor could he tell how the rods were inserted into the wooden fellie, because of the iron tire which was on its outside; their heads did not come through the tire—they were hid. He only saw two wheels, one was on the gig, the other against the wall; it had no shield, but it appeared as if there was going to be one. He did not notice the screws to fasten the shield.

Campbell, for the defendant, contended, first, that the invention was not new, wheels according to the model which was produced having been invented by Mr. Strutt in 1814, made under his orders, and publicly used near Derby for two years; secondly, that there was no infringement, the defendant's wheel, according to the evidence, being differently constructed; thirdly, that the specification did not confine the claim to any particular mode of constructing wheels on the suspension principle, but expressly claimed the invention of the principle itself.

The learned judge overruled the latter objection, being of opinion that, on the specification taken as a whole, the claim was for the invention of a method of making wheels on the principle of suspension, which method was described in the specification.

Witnesses for the defendant stated that they had made in 1814, for Mr. Strutt, a pair of wheels of which the model put in was a rough model; that the wheel had been put to a cart and used for carrying heavy loads of stones (30 cwt.) on the public roads for upwards of a year. The spokes occasionally got bent, and the box, or nave, becoming broken, the cart was laid by. A pair of these wheels, three feet high, were used on a milk cart for carrying the milk, every morning, of from thirty to fifty cows, from one of Mr. S.'s farms to his factory, where the milk was sold to the work-people. The wheels of this milk cart were on the suspension principle, and the spokes were braced together like the strings of a drum. The rods of the cart wheels were thicker at the heads, where they were put in through the outer edge of the

wooden fellie, and counter-sunk into iron plates in the fellie. Over the fellie was the iron rim, or tire. The spokes, or rods, were frequently straightened, and the wheel was worked until the iron tire was wore thin on the edges. Counter-sinking and conical heads are the same thing in different terms.

Sir James *Scarlett*, in reply, contended, on the authority of *Dollond's case* (*ante* 43), and of *Lewis v. Marling* (4 C. & P. 52), that the defendant's evidence did not show such a use of Mr. Strutt's wheel, or publication of the principle of suspension as applied to carriage wheels, as would impeach the plaintiff's right to a patent (*b*).

PATTESON, J., having summed up the evidence, proceeded as follows: "If on the whole of this evidence, either on the one side or the other, it appeared this wheel constructed by Mr. Strutt's order in 1814, was a wheel on the same principles, and in substance the same wheel as the other for which the plaintiff has taken out his patent, and that was used openly in public, so that every body might see it, and had continued to use the same thing up to the time of taking out the patent, undoubtedly then that would be a ground to say that the plaintiff's invention is not new, and if it is not new, of course his patent is bad, and he cannot recover in this action; but if, on the other hand, you are of opinion that Mr. Strutt's was an experiment, and that he found it did not answer, and ceased to use it altogether, and abandoned it as useless, and nobody else followed it up, and that the plaintiff's invention, which came afterwards, was his own invention, and remedied the defects, if I may so say, although he knew nothing of Mr. Strutt's wheel he remedied the defects of Mr. Strutt's wheel, then there is no reason for saying the plaintiff's patent is not good: it depends entirely upon what is your opinion upon the evidence with respect to that, because, supposing you are of opinion that it is a new invention of the plaintiff's, the patent is then good; then the only remaining question would be, whether the defendant has or not infringed the patent.

"Now as I have told you before, it seems the defendant has constructed a wheel whose construction is on the suspension principle; that alone would not make it an infringement of the plaintiff's patent, because the suspension principle might be applied in various ways; but if you think it is applied in the same way as according to the plaintiff's patent it is applied, then the want of two or three circumstances in the defendant's wheel, which are contained in the plaintiff's specification, would not prevent the plaintiff's recovering in this action for an infringement of his patent. It would be quite a different thing if it was shown that the defendant had his communication long before

An experiment, failure, ceasing to use, and abandonment, will not vitiate subsequent independent invention.

The defendant's wheel a piracy, notwithstanding the absence of certain parts.

(b) As to the words of the statute and letters patent, see *ante* 44, n.

with Mr. Strutt, and had taken up Mr. Strutt's invention in A. D. 1832. Derbyshire, and had constructed something like Mr. Strutt's without any knowledge of the plaintiff's patent, and had actually borrowed it from Mr. Strutt's, which was good for nothing; it would be the hardest possible thing to say that this was an infringement of the plaintiff's patent; but it merely comes to this by reason of the variance between the defendant's and the plaintiff's, it is only less useful and less durable, but is in effect the same thing. Then the two points for your consideration clearly are these: whether the plaintiff's invention is new, and, if new, whether the defendant has so constructed his wheel that it is an imitation of the plaintiff's patent; if you are of opinion for the plaintiff on both these points, your verdict will be for the plaintiff; but if you are of opinion on either of those two points against the plaintiff, then your verdict will be for the defendant; but you will be so good as to tell me upon what ground it is—whether it is upon the ground that the plaintiff's invention is not new, or upon the ground that the defendant's is not an infringement, because it may make a material difference hereafter."

In reply to a question from the jury, whether there was any evidence of the defendant having used or sold the wheels—

Patteson, J., said, the terms of the patent are, "without leave or license, make," &c.; now if he did actually make these wheels, his making them would be a sufficient infringement of the patent, unless he merely made them for his own amusement, or as a model.

Verdict for the plaintiff (c).

(c) The court granted a rule nisi for a new trial; but the parties having come to an arrangement, the rule was discharged, and a perpetual injunction granted by consent.

The preceding is of importance in illustration of the cases which arise on the words of the statute, and of the letters patent, as to what in law constitutes such a user as will vitiate a grant, *ante* 44, n.; it is also applicable to the question, whether the plaintiff was in law the true and first inventor. There was no user at the time of the grant, the evidence being, that Mr. Strutt's wheel was abandoned; but it was clearly established, that Mr. S. had applied the same principle before; then arises the question, whether the construction put by the learned judge on the specification was the correct legal construction. *Ante*, 123.

The material question, however, is, whether, supposing the true construction of the specification to be that suggested by the counsel for the defendant, the plaintiff was in law the true and first inventor within the meaning of the statute and the letters patent. An invention may be new as to public use and exercise, but the grantee may not be the true and first inventor. There is a material distinction between these two questions.

Tennant v. ———.

This was an action for an infringement of the plaintiff's patent (A. D. 1798), for "a method of

using certain calcareous earths instead of alkaline substances, by neutralizing the oxygenated muriatic acid used in bleaching," &c. and the specification states the spirit of that part of the invention to be, that the said earths by being kept in a state of mechanical suspense in water, are capable of uniting with the said gas, and forming a compound of great efficacy in bleaching.

The great utility of the invention, and the general ignorance of bleachers with respect to such bleaching liquor, until after the date of the plaintiff's patent, was proved. On the part of the defendant it was proved, that a bleacher had used the same means of preparing his bleaching liquor for five or six years anterior to the date of the plaintiff's patent; but that he had kept his method a secret from all but his two partners, and two servants connected in preparing it; and a chemist deposed, that having had frequent conversations with the plaintiff on the means of improving bleaching liquor, he had in one of them suggested that he would probably attain his end by keeping the lime-water constantly agitated; that the plaintiff afterwards informed him that the method had succeeded; that these conversations took place in 1796.

Lord Ellenborough, C. J. nonsuited the plaintiff on two grounds—1st. That the process had been used five or six years prior to the date of the patent; and, 2dly, That the plaintiff was not the

inventor of the agitation of the lime-water, an indispensable part of the process.

Lewis and another v. Marling.

In this case it appeared with respect to a material part of the invention claimed, that a similar machine had been in use at New York twenty years before, and that a specification of it was sent over in 1811 (the date of the plaintiff's patent being 1818), to a person named Thompson, residing at Leeds, and shown to several persons. It further appeared that in 1816, a model of a machine to shear from list to list by means of a rotary cutter (the subject of the plaintiff's patent), was brought over from America by a person named Smith, and shown to three or four persons in his manufactory, but no machine was ever made from it, nor was it publicly known to exist, and Smith always used machines made by the plaintiffs. It further appeared, that many years before a person named Coxon had made a machine to shear from list to list, which was tried by a person on behalf of the defendant, but he did not think it answered, and soon discontinued the use of it. Upon this evidence it was contended for the defendant that the patent was bad; but,

Lord Tenterden, C. J., held, that if it could be shown that the plaintiffs had seen the model or specification, that might answer the claim of the invention; but that as there was no evidence of that kind, the plaintiffs might be considered the inventors within the meaning of the statute (21 Jac. I. c. 3.), notwithstanding the model and the

specification brought over from America, and the making of a machine to work in that manner by Coxon; and he left it to the jury to say whether the invention had been in public use and operation before the patent.

There was a verdict for the plaintiffs, and the court refused a rule nisi for a new trial.

Bailey, J.: "If the model brought from America had been seen by the plaintiffs, they could not afterwards claim to be the inventors. But if I discover a certain thing for myself, it is no objection to my claim to a patent that another also has made the discovery, provided I first introduced it into public use." 10 B. & C. 27.

Parks, J.: "There was no evidence in this case to show that the plaintiffs were not the inventors of this machine, in this country at least." *Ibid*, 28.

Barker and Harris v. Shaw.

This was an action for an infringement of a patent for an improvement in making hats, and one of the plaintiffs' witnesses proved, that he had made the improvement which was the subject of the patent, whilst employed in their workshop; upon which *Holroyd, J.*, nonsuited the plaintiffs.

But if a person be employed to perfect the details of or carry out into execution the original idea of the patentee, that which he suggests or invents while so employed, and subsidiary to such idea, is in law the invention of the patentee. See *per Alderson, B.*, in *Minter v. Wells and Hart*, post 132. See also *Makepeace v. Jackson*, 4 Taun. 770.

MINTER'S PATENT.

Title. Letters patent, 9th November, 1 W. 4, A.D. 1830, to George Minter, for "an improvement in the constructing, making and manufacturing of chairs, to be called Minter's patent reclining chair."

Specification. I, the said George Minter, do hereby declare that the nature of my said invention, and the manner in which the same is to be performed, are particularly described and ascertained by the following description thereof, reference being had to the drawing hereunto annexed, and to the figures and letters marked thereon; that is to say: my invention of an improvement in the constructing making or manufacturing of chairs consists in the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acts as a counterbalance to the pressure against the back of such chair, and whereby a person sitting or reclining in such chair may, by pressing against the back, cause it to take any inclination, and yet, at the same time, the back of such chair shall, in whatever position it is

placed, offer sufficient resistance and give proper support to the person so sitting or reclining. * * * (a)

Having now described the various parts represented in the *Claim*. drawing, and the manner of their action, I would have it understood that I lay no claim to the separate parts of a chair which are already known and in use, neither do I confine myself to making them in the precise shapes or forms represented. But what I claim as my invention is the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acts as a counterbalance to the pressure against the back of such chair, as above described. In witness, &c.

MINTER v. WELLS AND HART.

Trin. Vac. 1834. *Cor. Alderson, B.*

F. Pollock stated the case for the plaintiff. The question in A. D. 1834. this case is simply whether the chair made by the defendant is an infringement of the plaintiff's patent, or the construction of a new and different invention. The object of the invention is to obtain a mode of connecting the seat and back of the chair so as to enable a person, by a simple effort of the body, to incline the back and have a reclining couch, and which may, by very little pressure, be restored to the original position, or may be kept in any intermediate position. On throwing the slightest weight on the back of the chair, the seat rises. The back of the chair plays on axles or points, and as it turns there is a part underneath which lifts up the seat, and on giving the slightest additional pressure the other way the back rises again; so that the whole is in a constant state of equilibrium wherever you put it, and the slightest pressure either way makes it move in that direction.

The plaintiff sold many hundred of these chairs; the defendants looked at it, and liked it very much; they appear to have said, here is a seat fixed at one end and made to rise up by the turning of the back; suppose we were to fix it at that end and make it rise up at this, by having an inclined plane in front instead of at the back. The defendants' chair is the seat taken and turned. This is not half so good, but a person has no right to say, my invention is not so good as yours, and therefore I cannot very much hurt you. The foisting upon the public of a

(a) The specification proceeds to give a detailed description of the drawings, and then describes very fully the method of using the chair. This is sufficiently explained in the subsequent report of

the law proceedings on the patent. The specification at full length, with a plate of the drawings, is published in the *Repertory of Arts*, for July, 1831.

*F. Pollock for
the plaintiff.*

spurious imitation of a reclining chair which a party has invented, and obtained a patent for, and introduced into public use, may injure the patent altogether, not by what is sold merely, but by what, by reason of such bad and spurious imitation, is prevented from being sold. Now the question is this; whether the defendants would ever have invented the chair which they profess to be theirs, unless they had seen this, had observed its success and the demand of the public for it. The identity of the two is ascertained without any difficulty—each of them has a back playing in that manner, each of them has a seat rising in an inclined plane, each has a seat with a hinge and capable of moving. As well might a person who had made an invention of great merit, in which one form of mechanical device was used, be deprived of the benefit of his invention by the use of another mechanical device, there being certain matters known among mechanics which are termed mechanical equivalents (*b*).

There is a case which will be in the recollection of the learned judge who presides on this occasion. Forsyth's patent (*c*) was taken out for the use of detonating powder in the discharge of fire-arms; there was a hammer that came down and struck the pan, containing a small portion of detonating powder, that of course by the percussion exploded, and the piece fired. A gun-maker who perceived the great value of the discovery, and the application of it to fire-arms, invented what he called another mode of applying the detonating powder, saying, justly enough, you cannot have a patent for a principle. He put the detonating powder in the pan, so that when the pan came down it knocked the hammer and fired the piece. I remember when that was produced, Lord *Tenterden* said, "Why, really, what is this? It is nothing but, instead of bringing the hammer to the anvil, bringing, very clumsily, the anvil to the hammer." I make a similar remark about this; it is nothing but applying precisely the same things, but it is doing it more clumsily; instead of having the seat turn upon a hinge where it ought, and raised by the inclined plane where it ought to be raised, the thing is reversed; it turns upon a hinge here and is raised by the inclined plane there, completely carrying the principle of the invention, embodying its parts, but deteriorating it at the same time, clearly showing, as I apprehend, to the eye of any person who will take the trouble to consider the effect of this, that the one is a servile copy of the other, with that degree of non-resem-

(*b*) This observation must be confined to those cases in which the particular mechanical device is not of the substance of the invention. The various elements of machinery have, as a general object, the modification and transmission of force; and the real question will be, for what purpose or to what end is the particular change made. In the case of

Webster v. Uther, a spring in a bolt was held, on the evidence of mechanics, the same thing as a bolt sliding in a groove. *Godson*, 232.

In *Morgan v. Seaward*, *post*, the infringement consisted in substituting an eccentric axis with a collar for a crank carrying a disk.

(*c*) See Forsyth's patent, *ante* 97.

that shall operate to cast a blind over the attempt to A.D. 1834.
 the public, and to deprive the patentee of his just rights.
 been suggested that the defendant is to say the plaintiff
 the inventor. The only other person who had any thing
 but it was a workman of the plaintiff's, who had a reward,
 for the hand and seal of both parties, for his secrecy dur-
 ing the invention to perfection. His lordship will tell
 any suggestion by a workman employed in perfecting
 there is no objection to a patent (d). If that which in
 is of the supposed individual himself would be perfectly
 is (for if he came with his action I should at once plead
 deed as an estoppel against him), I should think that
 man by his own solemn instrument is estopped with
 himself, it is too much somewhat for him to come and
 he rights to which he has given that sanction, in order
 to prevent the piratical attempts of third parties to share in
 to which they have no claim.

MR. B. : The plaintiff, in order to establish his right,
 must show that the invention is new, and that it is useful, and
 the specification is such that an ordinary workman could
 make a machine which would answer the purpose which the
 patent was intended to accomplish. The patent is *prima facie*
 on the part of the person who claims the right that he
 is entitled, and it is for the person who seeks to infringe that
 to show some circumstances whereby that right, which
 would be presumed to exist, is defeated, to show that
 the patent grant has been improperly obtained by the present

The patent
prima facie
 evidence.

Now, he claims under the patent, stating it in his
 to the crown, that he is the true inventor of the machine
 invention; and if it could be shown that he was not the true
 inventor; but that some one else had invented it, the crown is
 liable in that suggestion, which was the foundation on which
 the patent was obtained, and then the law is, that a patent obtained
 on such circumstances would be void, and no action could be
 brought against a party for the infringement of the patent, by
 the suggestion to the crown not being true.

The false sug-
 gestion to the
 crown, the
 ground of avoid-
 ing the grant.

in this case, in order to show that, they put in first the
 then you see what it is the plaintiff claims by the speci-
 —what he says is the basis of his invention; and he says
 specification, that his invention consists in this—in the
 invention of a self-adjusting leverage to the back and seat of a
 whereby the person sitting or reclining in such chair may,
 rising against the back, cause it to take any inclination,
 at the same time the back of such chair may in whatever
 it is placed offer sufficient resistance to give perfect sup-
 port to the person so sitting or reclining in such chair. Then

d) As to this important doctrine, see the cases cited, *ante*, 126, n. & *post*, 132, n. c.

Alderson, B. he goes on to describe the manner in which that is to be carried into effect, and he ultimately claims pretty nearly in the same words at the end: "My invention is the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acts as a counterbalance to the pressure against the back of such chair as above described." So that the essence of the invention consists in the chair having what he calls a self-adjusting leverage, that is to say, one which by the pressure on the seat raises the back, and by the pressure against the back raises the seat, and that whatever force of the muscles is applied to disturb the equilibrium, the moment that is taken off, the body remains in the position in which it was left. The essence of the claim to invention, and undoubtedly his claim, is the application of a self-adjusting leverage to the chair, and if it could be shown that any self-adjusting leverage had been before the plaintiff's patent applied to a chair, the patent would be void, because the priority of the specification given by him would claim every species of the application of a self-adjusting leverage to the back and seat of a chair; he would have claimed not the particular way of accomplishing the particular purpose by the particular engine, but he would have claimed too much, because he would have claimed the application of such self-adjusting leverage to the back and seat of a chair.

Now it is for you to say, whether you are satisfied that the species of self-adjusting leverage has ever been applied to the back and seat of a chair before. That would be material in this way, because it would naturally affect the second question which you would have to consider, which would be, whether the defendants have infringed the patent. For if there had been a self-adjusting leverage applied before, and the patent had been taken out for the particular mode of accomplishing it in the patent chair, any one else might have applied the same principle in any other way, and that would have been no infringement; but if the plaintiff's patent is for the adjustment of a self-acting leverage to the back and seat of a chair, then it would become a very different question, when you come to consider whether the defendant's is an infringement or not.

The first question, therefore, you will have to consider is, whether the invention itself is new; that is, whether that which is claimed as the invention of the application of a self-adjusting leverage to the back and seat of a chair, ever existed at all before. If you are satisfied that it had not at any time existed before, then you will inquire whether it is a useful invention; but about that there seems to be no reasonable dispute. But if it be new, if it be useful, and if the specification be such as that an ordinary workman could make the machine from the directions given in the specification, it would be a *prima facie* case on the part of the plaintiff. That may be answered by either one

The novelty and utility of the invention, and the sufficiency of the specification, being established, the

two ways, and that is the way in which they seek to answer plaintiff has a *prima facie* case.
either by showing the invention was not new, which turns
on the question, whether this chair was made upon the same
inciple. Secondly, whether you think, that, even though the
vention was not known, the defendants have shown the plain-
[was not the true and first inventor, and the question is,
ether Sutton was the true and first inventor; if he was, the
intiff is not entitled. [A Juror: I think, my lord, we are
erably well satisfied that it has not been proved, that Sutton
s the first inventor.] No, I think so too. The circumstance
the plaintiff being the first to introduce it, is so far *prima*
ie evidence that he was the true and first inventor. Then the
estion is, is that negatived by the evidence produced on the
rt of the defendants? That evidence comes to this:—Frederick
mkinson says, “that he saw twelve chairs of a similar descrip-
a to those for which the plaintiff is proved afterwards to have
en out a patent, in Dean-street, four years ago last March;”
it would be in 1830, and the patent was taken out in Novem-
r 1830. If, therefore, he is correct, the defendants are enti-
d to your verdict. The question will be, however, for you to
r, whether you are satisfied that Tomkinson is right: first, as
the period of time when he saw the chairs in question; and,
ondly, if he be right in that, whether he is right in saying
t the chairs were of a particular description mentioned, the
e as the plaintiff’s chairs. The way he describes that is this:
he chairs were similar to Mr. Minter’s—they had a fulcrum
ind, and were, in fact, his chair. I saw one or two of these
ished; they were not stuffed; they were not in a condition to
sold. I have been acquainted with Sutton for several years.
o not know who Sutton was working for; he did not keep a
p; he worked for the trade; all were recumbent chairs that
aw.” There is no doubt he might have seen twelve recum-
it chairs in the state he describes the twelve chairs to have
en seen, and yet it is also extremely probable that those re-
nbent chairs, the same in number and description, were chairs
a different principle; because we have the testimony of a
eson of a different description of the name of Langdon, who
s he remembers the chairs at this place; that there were
dve chairs; that they were finished, but not stuffed; but when
is examined as to the principle on which these chairs were
de, he says they were not on the same principle with the
irs in question; but that they were hinged; that they were
a rack behind, which undoubtedly was the state which all the
stlemen of science state was the condition to which chairs had
ived previously to the plaintiff’s invention. I think, there-
e, it is probable, when you weigh the evidence, that Tomkin-
saw the twelve chairs prior to the time of the patent, but
seeing them would not prove that there were any chairs like

The introducer
is *prima facie*
the inventor.

Alderson, B.

The person who suggests the principle is the true and first inventor.

Mr. Minter's in Sutton's possession. He says, John Chapman was working for Sutton; neither is here. Sutton would be a most important witness, for this reason, that Mr. Minter and Sutton were together about the time the invention took place; which of the two suggested the invention, and which carried it into effect, is a question for you to decide. If Sutton suggested the principle to Mr. Minter, then he would be the inventor. If on the other hand Mr. Minter suggested the principle to Sutton, and Sutton was assisting him, then Mr. Minter would be the first and true inventor, and Sutton would be a machine, so to speak, which Mr. Minter uses for the purpose of enabling him to carry his original conception into effect (e). You will judge which is the more probable of the two. Mr. Minter makes out his *prima facie* case; he is the person who takes out the patent. If Sutton has received a compensation, nothing would have been more simple and easy, that he should have taken out the patent, and still Mr. Minter might have the same benefit to-day; and there is no apparent reason why Sutton should not have taken out the patent which Mr. Minter has taken out, unless they were both desirous to ruin the invention: for, suppose two persons are engaged on an invention of this description, they know perfectly well between themselves who is the real inventor of it, and who is the workman to carry into effect the conception, but they would destroy the value of it to both if they did not take it out in the name of the right person. Whatever the probabilities of the case, therefore, are, you will not leave that entirely out of the question.

Highley's evidence, the smith, is perfectly ambiguous; he says he knows Sutton; he was employed by him to manufacture some iron plates; he was employed in September 1830. It is probable, that in 1830, whether you take Mr. Minter to be the inventor, and Sutton the mechanic, whom Mr. Minter was employing to carry his conceptions into effect, it is very likely, in either view of the case, that Mr. Minter might have given the shape of these plates, and sent Sutton to order them of the smith; and we find, that about September 1830, must have been the period of time at which Mr. Minter would have been engaged upon the invention. The patent is taken out in the November following. One pair of plates only is ordered in September; that looks like an experiment; then the patent is taken

(e) As to this, see *ante* 126. In the case of *Blaxam v. Elsee*, 1 C. & P. 567, it was objected, that several of the parts of the machine had been suggested by Mr. Donkin; and the circumstances of that invention furnish a good illustration of the kind of assistance which an inventor may receive from another person. The invention was of a machine to make paper in continuous sheets of an indefinite length; and the peculiar feature or principle of the invention was the receiving the

pulp on an endless wire web, passing round cylinders and revolving with the same uniform velocity. The general idea of a machine on this principle having been conceived, the mechanical details and arrangements requisite for carrying the principle into practice, so as to realize the idea, were extremely numerous and complicated, and Mr. Donkin was employed professionally to assist in those arrangements.

vember, and then a dozen pairs are ordered—that looks A. D. 1834.
 ing into effect the plan when the invention is com-
 He does not see any chairs with these plates upon
 il two or three months after, and it is quite clear that
 t had been taken out by that time. He says, “he saw
 irs at Dean-street;” that was after the patent was taken
 says, “he made a dozen plates in November, he cannot
 ay precisely, it was after the date of the patent. Mr.
 oved into Dean-street in September; he had employed
 e; I think Mr. Minter’s name was on the door.”
 was the place where Sutton was working, and, therefore,
 e have no direct evidence between them, one way or
 ; he might not be his servant, he might be assisting
 ury into effect this invention; Mr. Minter wanting an
 nd to carry into effect the conceptions of his own ori-
 d. Then the baker, Charles Willson, says, “that some
 30, Sutton showed him, in the back shop, a chair which
 like this chair, and upon which he was working at the
 acted by balances, and the action was according to the
 “There was a person called Minter;” the probability is,
 was the plaintiff; “he used to come with Sutton on a
 to the back shop;” at that time, of course, the workmen
 away, and he would be left alone. If Mr. Minter was
 on making the invention, and was probably consulting
 ton for the purpose of getting this conception carried
 t, is it not probable he would come at those times when
 s no other workmen about, that the invention might
 ut to the trade, and some one precede him in claiming
 it, that the idea might not creep out? Because, it very
 least not unfrequently, occurs, that some workman turns
 ives out the conception, which is the original or true
 ; some other adroit workman carries on his proceedings
 e rapid way, and procures a patent before the person
 le the first conception.
 s the question. If you are of opinion that the plaintiff
 rst and true inventor, that the invention is useful, and
 plaintiff has given such a description of it in his speci-
 as would enable an experienced workman to make the
 m it, there seems no doubt that the defendants’ chair
 fringement of that patent, because, undoubtedly, it is a
 le variation only. There is a celebrated case, which Mr.
 3uller mentions, where a party produced a machine which
 ight appeared totally different from the machine which
 subject of the patent, but when you came to consider it,
 ifference was that the head was where the tail should be,
 tail where the head should be, but they operated on
 e principle; and so it is precisely here—the parts are

MINTER'S PATENT.

The whole case is now before you. You will consider, whether you are satisfied that the plaintiff has made out his case, that he is the inventor of the machine, that the machine is new, that it is a useful one, and that he has delivered such a specification as would enable a workman to make it, and that that which the defendants have brought out is an imitation of it.

Verdict for the plaintiff.

In the Exchequer,
Mic. T. 1834.

Cor. Lord *Lyndhurst*, C. B., J. A. *Parke*, *Alderson*, B.,
and *Gurney*, B.

Motion for nonsuit.

A claim, "my invention is the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acts as a counterbalance to the pressure against the back of such chair, as above described," is not a claim to a principle, but to an application to a certain purpose, and by certain means.

Godson, in pursuance of leave reserved, moved for a nonsuit, on the ground that the specification is for a principle, the plaintiff having summed up the whole of his patent in his claim to the principle, and not to any particular means. Either the plaintiff claims a principle, or he does not; to the former he is not entitled; and as to the latter, the defendant has not used the mechanical means of the plaintiff. [Lord *Lyndhurst*, C. B.: He says, "what I claim as my invention is the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acts as a counterbalance to the pressure against the back of such chair, as above described." That is what he claims, a self-adjusting leverage acting in that way. Then he points out the particular mode in which that is effected. The question, therefore, is, whether you have infringed that particular method.] [*Alderson*, B.: All the witnesses proved that there never had been a self-adjusting leverage in a chair before.] That I admit, and contend that this case is nearly the same as *K. v. Cutler* (f). [Lord *Lyndhurst*, C. B.: He says, "I claim the application of a self-adjusting leverage to the back and seat of a chair," so as to produce such an effect.] Yes, my Lord, that effect being nothing more than the motion of a lever backwards and forwards, producing such an effect. [Lord *Lyndhurst*, C. B.: It is the application of a self-adjusting leverage to the back and seat of a chair, he having described what that self-adjusting leverage was before. Any application of a self-adjusting leverage to the back and seat of a chair producing this effect, that the one acts as a counterbalance to the pressure against the other, would be an infringement of this patent, but nothing short of that.] [*Alderson*, B.: The difference between this chair and all others, as it appeared in evidence, was very well described by Mr. *Brunton*; he says, this chair acts (looking at the one you produced), this chair acts, but not by a self-adjusting leverage. By pressing

(f) 1 Stark. 354, and ante, 76, n.

on the back the seat rises, and, *vice versa*, by pressing on the seat the back rises; that is what he calls a self-adjusting leverage. In the other case you might sit for ever, and the back would never rise.] The plaintiff, by his specification, has appropriated to himself a first principle in mechanics, *viz.* the lever, and therefore nobody else may use it. [Lord *Lyndhurst*, C. B.; It is not a leverage only, but the application of a self-adjusting leverage; and it is not a self-adjusting leverage only, but it is a self-adjusting leverage producing a particular effect, by the means of which the weight on the seat counterbalances the pressure against the back.] This is nothing more than one of the first principles of mechanics. [Parke, B.: But that not being in combination before, can that not be patented? It is only for the application of a self-adjusting leverage to a chair—cannot he patent that? He claims the combination of the two, no matter in what shapes or way you combine them; but if you combine the self-adjusting leverage, which he thus applies to the subject of a chair, that is an infringement of his patent.] What is the combination? [Lord *Lyndhurst*, C. B.: Why the application of a self-adjusting leverage producing the effect constitutes the machine, and he claims that machine, and the right to make that machine, by the application of a self-adjusting leverage producing a particular effect. He says, I do not confine myself to the particular shape of this lever.] If your lordships translate this to mean machine, of course I have no further argument to urge. [Lord *Lyndhurst*, C. B.: It is every machine consisting of a self-adjusting leverage producing that particular effect in a chair.] That is the extent to which I am putting it. If your lordships say you can, in favour of the patentee, so read it, that it is the machine and the combination only that the plaintiff has claimed, then I should be wasting your lordships' time if I argued the matter further. [Lord *Lyndhurst*, C. B.: Substantially that combination.] [Parke, B.: Therefore a chair made upon that principle which you have directed to be constructed here, would be an infringement of his patent, that is, the application of a self-adjusting leverage to a chair, such a one as you have produced here to-day.] [Lord *Lyndhurst*, C. B.: It has the particular effect.]

Rule refused.

MINTER v. WILLIAMS (a).

The fourth count in the declaration in this action assigned as Letters patent
a breach that the defendant, without the consent of the plain- granted to the

(a) This case is reported 5 Nev. & M. 647; 4 Ad. & El. 251; 1 Har. & W. 585.

plaintiff to "make, use, exercise and vend" his said invention, and prohibited that any others should "make use, or put in practice" the same; held, that a count for exposing to sale is bad on general demurrer.

tiff, &c., did wrongfully and unjustly expose to sale, divers, &c., chairs which were intended to imitate and resemble, and did imitate and resemble, the said invention of the plaintiff. To this there was a general demurrer and joinder.

Channel, in support of the demurrer. The mere exposure to sale of chairs resembling those invented by the plaintiff, is not a breach of the privilege granted to him. The fourth count does not charge that the defendant made the chairs which he exposed to sale, and it is quite consistent with the allegations in that count, that the chairs may have been placed in the defendant's shop by a person duly authorised. Certainly it is consistent with these allegations that the defendant may never have completed the sale of any chair; that he may have withdrawn them immediately upon discovering that by selling them he should infringe the plaintiff's patent. Construing this patent with reference to the statute of monopolies, (21 Jac. I. c. 3,) and it cannot be carried further than that statute warrants, there is no ground for saying that a mere exposure to sale can be an infringement of the patent (*b*). By the patent, the plaintiff is to have the exclusive right to "make, use, exercise and vend," his invention. An exposing to sale does not come within any of these terms. It is not a vending, for to "vend" signifies to "sell," and is so treated in many statutes of this sort, in which the expression "expose to sale" is commonly superadded to the word "sale." Thus in the Game act (1 & 2 Will. 4, c. 32), by which it was intended to prohibit an exposing to sale, as well as a vending, without a license, the words "sell or offer for sale" are used. So in the statute of 8 Anne, c. 19, (the first Copyright act,) the words "sell, publish, or expose to sale," are used (*c*). Nothing can be deemed an infringement of a patent, or a copyright, which does not come aptly within the meaning of the words of the statute (*d*).

J. Evans, contra. The word "sell" is not found in the patent, but vend; and vend means to sell or expose for sale. In Johnson's Dictionary, vend is rendered to sell, to offer for sale. In Ainsworth's Dictionary, *vendo* is derived from *venum* and *do*, and is explained to "sell or set to sale, to offer or proffer for sale." In the Dictionary of the French Academy, some of the interpretations of *vendeur* apply to an offering for sale. The question, therefore, cannot receive any illustrations from statutes in which the word vend is not used. The act of exposing to sale

(*b*) The statute having declared all grants of monopolies void, as contrary to common law, provides that such declaration shall not extend to "any letters patent and grants of privilege of the sole working or making of any manner of new manufacture within the realm," (*ante* 29, 30); it is important to observe the particular terms of the letters patent, both before and since the statute, in

order to ascertain the legal effect of the privileges conferred thereby. *Ante* 7-8, n.

(*c*) Similar words are found in the subsequent acts, for giving copyright in various things, as casts, engravings, patterns, and designs.

(*d*) See *Coleman v. Wathen*, 5 T. R. 245; *Murray v. Elliston*, 1 Dow. & Ry. 299; S. C. 5 B. & Ald. 657; and *ante* 7-8, n.

is in this case clearly within the mischief intended to be provided against by this patent, and is also within the words. [*Patterson, J.*: If vend means "expose to sale," why did you not use the word "vend" in your count? You should use the very words of the instrument. Why use words which you suppose to be an equivalent?] The exposing to sale is also comprehended within the terms "use and exercise, use and put in practice." A great part of the advantage derived by a tradesman from any ingenious invention that he has made, arises from the reputation acquired by exposing to sale; a person, therefore, who exposes to sale without a license, may be said to use the invention. A liberal construction must be put on the letters patent, in order to carry their intention completely into effect. According to the argument of the defendant, the article in question might be exhibited for sale with impunity, if it be only done by the agency of some other person, at least so long as no actual sale could be proved.

PATTERSON, J.: In drawing declarations for the infringement of a patent, pleaders have always used the words of the patent, either those in the granting or prohibiting part of it. I cannot doubt for a moment that there is a clear distinction between vending and exposing to sale, notwithstanding the authority of the dictionaries referred to. The plaintiff should, in his declaration, use the words either of the granting or prohibiting part of the patent. This is quite a new course of pleading, to put in a word which does not occur in the patent. If the word "vend," really does mean "to expose to sale," as well as to "sell," the count should have charged the defendant with vending; and the act of exposing to sale might have been proved in support of it.

The words of the letters patent should be used.

WILLIAMS, J.: I am of the same opinion. The granting part, and the prohibitory part, differ from each other. We are told, that grammatical authorities show, that "vend" and "expose to sale" necessarily mean the same thing; I cannot agree that it is so. There is a manifest distinction between them. Why was not the word "vend" introduced into the declaration? The reason was, that they could not prove a sale outright, and so they would not have the word "vend," which the pleader was of opinion meant to sell. If we are required to abide by grammatical authorities, I am ready to do so; but I am certain that there are no authorities in English or Latin, which represent "to vend," and "expose to sale," as meaning the same thing.

COLERIDGE, J.: In the granting part of this patent, the words are, "make, use, exercise, and vend;" and then in the prohibiting part the words are rather different, for an obvious purpose; they are "make, use, or put in practice." Now we are to see whether this count, either referring to the granting or the prohibiting part, necessarily imports an offence. The words of the count are, that the defendant did "wrongfully and unjustly expose to sale," &c.; and it is said that these words necessarily import a

vending, within the granting part of the patent. It is argued, that an exposing to sale is included within the meaning of the word "vending;" but even upon that construction the count would be defective, inasmuch as the evidence, instead of the words of the patent, is put upon the record. It seems to me, that "vending" imports the habit of selling, and "selling" the act of sale. If we read the word "vend" as expressly inserted in the prohibitory part of the patent, we ought only to give it there the meaning which would effectuate the purpose of the patent—the prevention of acts injurious to the patentee, with as little restraint on the public as possible. It must be taken here, that the defendant has only exposed to sale; that whatever may have been his original purpose in so doing, or whatever motive has supervened, he has abstained from selling. Now, I cannot say that such a mere exposure to sale is necessarily injurious to the patentee; it may, on the contrary, be very beneficial; it is not, therefore, necessarily the vending, which is exclusively granted to him. As to "using and exercising," those words cannot be fairly resorted to, when we find with them the word "vending," and that is passed by. But, if they could, the argument would be the same; this might be an innocent using and exercising, and so not prohibited.

The exposing to sale is not necessarily prejudicial. A using and exercising which is not prejudicial is not prohibited.

Judgment for the defendant.

MINTER v. MOWER.

Cor. Lord Denman, C. J. Trin. Vac. 1835.

A. D. 1835.

In this action the defendant pleaded—1. Not guilty. 2. That the plaintiff was not the true and first inventor of the said invention, and that the said invention was not a new invention. 3. Setting out the specification, and averring that plaintiff did not enrol any other instrument, &c., and that the said instrument did not particularly describe and ascertain the nature of the said invention, and in what manner the same was to be performed.

Sir J. Campbell, A. G., Sir F. Pollock, and Evans, were for the plaintiff. Damages were asked for the second infringement. Talfourd, Serj., and Godson, for the defendant.

The plaintiff is not entitled to damages in a second action as of right.

Lord DENMAN, C. J.: I hardly think any damages can be given, because there is no evidence at all of any extent of loss sustained, not even to speculate on. It does not appear whether Mr. Mower has made more than a single chair, the subject of this action, or that he has gained any profit by it. I must own I think, although the patent has been established against other parties, probably you would not consider that this

was a case in which, if you find a verdict for the plaintiff, you would consider him entitled to more than nominal damages establishing his right. A. D. 1835.

The question is, whether you are satisfied the defendant has made out his defence, because, in the first place, the plaintiff proves his patent. And then he gives, certainly, important evidence of its being a new invention; the evidence of Mr. Farey, who happens to have made use of the chair himself, and who probably may be known to you as a person very likely to have heard of any invention of this sort if it ever had been discovered before. The defendant's plea is, that the plaintiff is not the true and first inventor. Mr. Farey and some other gentlemen having given the same evidence on the part of the plaintiff, that there has been no such thing known before as a chair with self-adjusting leverage, the witnesses who are called on the part of the defendant all go to the same point to that extent, with the exception of this particular chair that was made by Mr. Brown for the defendant in the year 1829, and they say, although these chairs have not been in use, and though the principle has not generally been known, yet they undertake to satisfy you by direct evidence that this person Brown, in 1829, did make a chair so as to show the plaintiff is not the real inventor of the chair, the piracy of which is complained of; and if the defendant proves that to your satisfaction, although the plaintiff may actually have been the inventor, he would not in the sense of this patent be the first and true inventor, because another person in that case would have it upon the same invention. You should be satisfied that the chairs which were made by Brown for Mower in 1829, were substantially the same as those for which the patent is claimed. If they were, then the patent has been taken out without proper foundation, because the discovery has been made before. It is the defendant's duty to prove that, and the question is, has he proved it?

Now the person who made these chairs, Brown, is not here as a witness; that should produce no prejudice either on one side or the other. I do not see any great addition he could have made to the defendant's case if he had been here, because that he made a chair of that description is perfectly clear. I cannot receive it would be very strong, even if he had said he had discovered this principle of the self-adjusting leverage, when it does not appear he claimed it, took out any patent for it, or that his master did, or that there was any production of the article that could be beneficial to himself or Mr. Mower. It seems that is a very strong argument to show that in point of fact they had not made the discovery, at least how to make this principle available for general use, but the fact that he had made chairs of this description seems quite undoubted. There is a chair laid before you of Mr. Clark's, connected as it appears

If an alleged discovery be not pursued, the presumption is that it was not made in a useful form.

Lord Denman,
C. J., to the
jury.

with a model that has been produced before you, which to a certain degree adopts some of the machinery that is necessary for a self-adjusting leverage to a chair. But then the question is, whether the chair is the same as the chair that the plaintiff's patent protects.

Now I thought it would turn very much on this, whether, in the first place, you are satisfied, that supposing that machinery was away which the witness described,—the pad, the stop, and the spring, which the witnesses for the defendant say, made it necessary that the hand should be applied to give some assistance to the body; whether, supposing that that machinery had been away from Mr. Clark's chair, you are satisfied that would have been a chair with a self-adjusting leverage. I confess it appears to me, that is a little left in doubt, because I do not find that it ever was put into operation so as to test that fact. But supposing, in the second place, it would have been a chair with a self-adjusting leverage, if that encumbering additional part had been away, then the question is, whether the principle of self-adjustment was at all discovered or thought of at that time. Because, it seems to me, if that principle might have been deduced from the machinery of the chair that was made, but that it was so encumbered and connected with other machinery that nobody did make that discovery, or ever found out that they could have a chair with a self-adjusting leverage, by reason of that or any other defect in the chair actually made; I confess it seems to me, that does not prevent this from being a new invention, when the plaintiff says, I have discovered, throwing aside every thing but this self-adjusting leverage itself, that will produce an effect, which I think a very beneficial one; and I cannot help thinking that must be a beneficial effect, because there are certain persons who are deprived of all strength, and who cannot help themselves at all, and who should not be called on to use a stop or spring, or to make any exertion whatever, who have, it seems, found very great comfort from the chair which applied this principle of self-adjusting leverage so as to make any exertion of their own unnecessary.

The user of a method or principle in ignorance, will not vitiate a subsequent patent.

The evidence runs into considerable length, but the facts are pretty simple on the whole, and I will recapitulate their general nature. A chair is made by Mr. Mower's workman in 1829; that chair has the principle of the reclining back to a certain extent raising the seat in front; it is connected with what is called a rack below, which makes it necessary that a spring should be touched in front to detach it from the catch of the rack; that is the first thing necessary to its going back; and in order to its coming forward, it is necessary the party should extend his hand and take hold of the pad, and should draw himself to a certain degree forward. All the witnesses concur in that to a certain degree: Mr. Newton says, without that pad, the self-adjusting leverage would have operated in

air, but it certainly does not appear that that leverage A. D. 1835. applied to it, or that any chair was ever made without additional matter which prevented the self-adjusting lever from having that operation. So that you will have to say a general description of the case, whether you are satisfied a self-adjusting leverage was in that chair at all, and if it whether you are satisfied that it could not act by reason t was otherwise connected with it, and then, whether ank that any person discovered that self-adjusting prin- om the chair that was formed at that time. It is quite ent whether the word 'self-adjusting' is the correct de- on of the thing. It seems to describe it so that no man uest what it is, namely, that one part of the body is to rbalance the effect of the other part on the two different of the chair (a).

The inaccurate use of a word, if what is intended be clear, is immaterial.

* * * * *

(b) the questions that I have to leave to you are:—Would been a chair with a self-adjusting leverage if those en- ances had been away?—did those encumbrances prevent ng so, and was this principle of self-adjusting leverage red at the time that chair was made, or is it entirely a scovery made by the plaintiff?

jury found as follows:—That the chair made by Brown *Special verdict.* have acted so as to produce the equilibrium by a self- ng leverage, if the spring and the other things had not ttached to the chair, that is, if it had not been for the bering of bad machinery. That Mr. Brown was the in- , but that Mr. Brown was ignorant of the practical use it be turned to, and that Mr. Minter was the author of the al purposes of the thing, although Mr. Brown was the d inventor, but was ignorant of the principle of the ma- in fact, that the other machinery attached to Brown's prevented the self-adjusting leverage from producing rium.

learned judge directed a verdict for the plaintiff; with for the defendant to move to enter a nonsuit.

he test here proposed, and the recognition me principle in *Derosne v. Fairie*, post 157, he doctrine as laid down and upheld by t, in

R. v. Metcalf.

at case the letters patent were for a "taper- b," and it appeared from the specification, brush differed from the common brush having the bristles left of an unequal nstead of being cut down so that the sur- be brush should be level, all the bristles nearly as possible of the same length.

Ellenborough, C.J.: Tapering means gra- onverging to a point. According to the tion, the bristles would be of unequal ut there would be no tapering to a point,

which the description assumes. If the word taper- ing be used in its general sense, the description is defective, there is no converging to a point. If the term has had a different meaning annexed to it by the usage of the trade, it may be received in its perverted sense."

The defendant being unable to supply any such evidence, there was a verdict for the crown. 2 Stark. 249.

It is, however, material to observe, that in this case, the inaccurate term being recited in the let- ters patent, might be considered as leading directly to a false suggestion. See *ante*, 42, n.

(b) The learned judge commented at considera- ble length on the evidence with respect to Brown's chair.

Motion for nonsuit.

In the ensuing term *Talfourd*, Serj., obtained a rule for a nonsuit, on the ground that the finding of the jury showed the plaintiff's invention to be an improvement on the application of the principle of the self-adjusting leverage; whereas the specification claims every application of the self-adjusting leverage (c).

May 5, 1837.

A claim, that the invention consists "in the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acts as a counterbalance to the pressure on the back," is bad, if it appear that a chair on the same principle had been made and sold before, although the operation of it was encumbered by additional machinery.

Semble, that a claim for an improvement on such application would have been good.

Lord DENMAN, C.J.: (d) An action between the same parties has already been decided by the Court of Exchequer, in which the patent claimed by the plaintiff was deemed good and valid. But on the trial in this court an entirely new fact was given in evidence, and affirmed by the verdict of the jury, namely, that a chair very closely resembling that made by the plaintiff's patent had been made and sold before that patent was taken out. The words of the jury were these: "We are of opinion that Brown was the inventor of the machine, and found out the principle, but not the practical purpose to which it is now applied; we think that Minter (the plaintiff) made that discovery." This statement might not be fatal to the plaintiff's title if his invention were truly set forth in the specification, but the issue in this cause being simply, whether the plaintiff did thereby particularly describe and ascertain the nature of the said invention, we find it needful to examine the terms of it.

Now the patent is taken out for "an improvement in the construction, making, or manufacturing of chairs;" the method of making the machine, and the way in which it acts, are then fully described, without any mention of any of the means employed in Brown's chair. The specification thus concludes: "what I claim as my invention is, the application of a self-adjusting leverage to the back and seat of a chair, whereby the weight on the seat acts as a counterbalance to the pressure against the back of such chair as above described." Now it was perfectly clear upon the evidence that this description applies to Brown's chair, though that was encumbered with some additional machinery. The specification, therefore, claimed more than the plaintiff had invented, and would have actually precluded Brown from continuing to make the same chair that he had made before the patentee's discovery. We are far from thinking that the patentee might not have established his title by showing that a part of Brown's chair could have effected that for which the whole was designed. But his claim is not for an improvement upon Brown's leverage, but for a leverage so described that the description comprehended Brown's. We are, therefore, of opinion that the patent cannot be sustained, and a nonsuit must be entered.

Rule for nonsuit absolute.

(c) See *ante*, 134, in *Minter v. Wells and Hart*, as to the invention claimed.

(d) The case was argued in Hilary Term, 1837, before Lord Denman, C.J., *Patteson & Williams, Js.* The cases of Dollond's patent, *ante* 43, and *Jones*

v. Pearse, *ante* 126, were cited in support of the argument, that it is not the making a discovery, but the successful introduction of it, which constitutes such a user as will vitiate a subsequent patent. 6 Ad. & E. 741.

JUPE'S PATENT.

Letters patent to Robert Jupe, 11th March, 5 W. 4, for "An *Title.*
improved expanding table."

The object of my invention or improvement is, so to construct *Specification.*
an expanding table, that the sections which compose the surface of the original or unexpanded table may be caused to diverge from a common centre, so that the table may be enlarged or expanded by inserting leaves or pieces in the openings or spaces caused by the divergence of the sections from the common centre. Having thus generally stated the nature of the invention, and the object to be obtained, I would remark, that there are various mechanical arrangements by which the invention may be performed, depending partly on the taste of the individual for whom a table is to be constructed. I therefore propose to describe the different arrangements of parts which I have made, and find to answer, and which from experience I can state will give full effect to my invention or improvement. But my improvement is applicable not only to the precise arrangements hereinafter shown and described, but to various other forms of the same table, provided the property of expanding the surface of the original table, by causing the sections to diverge from a common centre, be retained, and the table be enlarged or expanded by inserting leaves or filling pieces in the spaces caused by such divergence, in the manner hereinafter mentioned. These different forms or shapes must depend on taste, and so must also the details of the mechanical arrangements which govern and retain the sections of the surface of the table securely to the desired positions, and carry my improvement into effect. * * (a)

Having thus described the nature of my invention, and the *Claim.*
manner of carrying the same into effect, I would remark, that I do not claim the various parts separately of which the same is composed; nor do I confine myself to the precise manner of moving the sections (a a) of the surface of the table. But I do declare that my invention of an improved expanding table consists in constructing the same, so that the sections (a a) of which the original or unexpanded table is composed, may diverge from a common centre, and the table be enlarged or expanded by inserting leaves or pieces in the openings or spaces caused by the divergence as hereinbefore described.

In witness, &c.

(a) Here followed a description of the drawings, which showed, by twenty-two figures, various kinds of expanded and unexpanded tables, and the apparatus by which the expansion was to be effected.

The specification, with a plate of the drawings, is published in the Repertory of Patent Inventions for Feb. 1837.

JUPE *v.* PRATT AND ANOTHER.*Cor. Lord Abinger, C. B. Mich. Vac. 1836.*

This was an action for the infringement of the preceding patent, and the declaration assigned the following breaches:—Made and sold tables in which they the defendants did use and put in practice the said invention of the plaintiff; and tables in which they the defendants did use and put in practice a part of the said invention of the plaintiff; and tables imitating and resembling the said invention of the plaintiff; and tables with certain subtractions from, and additions to, the said invention of the plaintiff, whereby to pretend themselves the inventors and devisors thereof.

Pleas.

The defendants pleaded, 1st. Not guilty. 2d. That the plaintiff was not the true and first inventor of the said improved expanding table. 3d. Setting forth the specification, and averring, that the plaintiff did not by the said instrument particularly describe and ascertain the nature of the said invention, and in what manner the same was to be performed according to the true intent and meaning of the said letters patent and proviso. 4th. That the said invention was not a new invention as to the public use and exercise thereof within England.

At the trial, the defendants called no witnesses, and the following points were left to the jury. First; Whether the invention was a new invention. Secondly; Whether the defendant had infringed the plaintiff's patent, the evidence being, that the defendants had applied the principle of Gillow's table (*b*); and that the imitation of the plaintiff's patent by the defendants consisted in cutting the table into four parts, and applying the principle of Gillow's table in the separation of all the parts, without using any of the mechanical means suggested by the plaintiff in the specification. The verdict was entered for the plaintiff (*c*).

In the ensuing term, leave having been reserved to move on the specification, a rule *nisi* for a nonsuit, or a new trial, was granted on the grounds, 1stly, That the specification embraces the mechanical contrivance. 2dly, That the claim is too large, it appearing by the evidence that Gillow had already divided the table into two sections, receding from a common line. And, 3dly, That if both these points are in the plaintiff's favour, the defendants' table is not a piracy, being followed on Gillow's patent.

(*b*) Gillow had a patent, expired for twenty years, for cutting a table in half, and drawing each portion apart by slides fitting into grooves under the table, and filling up the intermediate space

with a leaf or leaves, called the telescope table.

(*c*) See a full report of the trial in the *Repertory of Patent Inventions*, vol. 8, N. 8.

Cor. Lord Abinger, C. B., Bolland and Alderson, Bs.

In the Exchequer.
E. T. 1837.

Sir *F. Pollock* and *Richards* showed cause. Instead of the order nonsuit in the rule, there ought to be, show cause why the verdict should not be entered for the defendants upon one or more issues. Since the new rules (*c*), a nonsuit can rarely occur; and Lord Brougham's Act, in the spirit of the new rules, provides, that whether there is an issue or not in the case of a defendant, the judge should certify what were the points raised at trial, although they did not distinctly appear on the pleadings; and that the plaintiff should have the costs on those points, to which the judge should certify that he had sustained not only the issue but the points raised at the trial. The statute is in the spirit of the new rules, but goes further, so that if a point arises in the course of an issue, and that point is found for the plaintiff, although the issue is found against him, the judge has authority to certify that point to have been so found if left to the jury, and on that costs are to be given to the plaintiff or defendant, as the case may be (*d*). The defendants cannot ask to set aside the verdict entered on the issue not guilty; or that it was the plaintiff's invention; or that the invention was not new; or the points having been distinctly left to the jury.

The fair mode of looking at a patent and the specification is, to inquire what is the spirit of the invention, or the principle; this must be embodied in some mode or method, because it is admitted on all hands you cannot take out a patent for a principle. But although the law says, undoubtedly and correctly enough, that you cannot take out a patent for a principle, that is, for a barren principle, when you have clothed it with a form, given it body and substance, in which the principle may live and produce the benefit which you claim to result from it, why in many cases (and it is a consolation to every just and honest feeling one has on the subject of invention), although you cannot have a patent for a principle in substance, you can have a patent for the spirit of your invention; for if any other person takes and clothes the spirit of your invention with a different form, and puts that principle in use in any other shape or position, it is always a question for a jury, whether, however different in appearance, in shape, in form, in method—whether the thing or the practice, if it be matter connected with the arts and manufactures, be or be not substantially an adaptation of the

A principle, to be the subject-matter of a patent, must be embodied.

The new rules came into operation Easter 1834, and Lord Brougham's Act (5 & 6 c. 83) received the royal assent 10th September, 1835.

(*d*) As to the practice under this, see *Lush v. Hagus*, post, and notes to 5 & 6 W. 4, c. 83, s. 6, in *Law & Practice, Statutes*.

*Argument on
rule for a non-
suit, for new
trial.*

principle, applied with the same view, to answer the same end, and merely imitated in substance, whatever difference there may be in point of form.

I cannot give a better illustration of this than by referring to a case in which the Lord Chief Baron led; it was about a machine that was called a gas meter. (*Ante* 106.) [*Alderson, B.*: It was for measuring the quantity of gas that was supplied to every individual, in order that they might not take it without its being known. There never was a more instructive case than that; I remember very well the argument put by the Lord Chief Baron who led that case for the plaintiff, and succeeded. There never were two things to the eye more different than the plaintiff's invention and what the defendant had done in contravention of his patent right. The plaintiff's invention was different in form—different in construction; it agreed with it only in one thing, and that was, by moving in the water, a certain point was made to open, either before or after, so as to shut up another, and the gas was made to pass through this opening; passing through it, it was made to revolve it; the scientific men, all of them, said, the moment a practical scientific man has got that principle in his head he can multiply without end the forms in which that principle can be made to operate. The difficulty which will press on you, and to which your attention will be called in the present case, is this: you cannot take out a patent for a principle; you may take out a patent for a principle coupled with the mode of carrying the principle into effect, provided you have not only discovered the principle, but invented some mode of carrying it into effect. But then you must start with having invented some mode of carrying the principle into effect; if you have done that, then you are entitled to protect yourself from all other modes of carrying the same principle into effect, that being treated by the jury as piracy of your original invention. But then the difficulty that will press on you here is, that on the evidence there does not appear to have been any mode of carry-

The adoption of
a principle,
whether a pi-
racy, a question
for the jury.

ing the principle into effect at all invented by you.] I was citing the case of the gas meter only to get at a principle with which to start. I take it, therefore, I may assume from the authority of that case, on your lordship's authority now, that if a man invents, adapts a principle, and embodies that principle in a mode, it is then a question for the jury, whether any other mode of doing the same thing is or is not a piracy of that which he has invented.

The title of the patent is merely "an improved expanding table," and I say that that is a very correct title, whatever was the object of the invention, whether to secure to himself the mere surface, or the mode, or any thing else. The object of the invention, properly speaking, was to improve the construction of a dining table; that is the large object; but the special object

is this—to construct an expanding table, that the sections which compose the surface of the original or unexpanded table may be caused to diverge from a common centre. At the trial there was a great deal of discussion about the term common centre, and a table in two pieces was said to diverge from a centre. This is an abuse of language. The intention of the party is to be ascertained. Mr. Baron Bolland will remember a case in which Lord Chief Justice Dallas told the jury, that a patent was not to be called in question because among imponderable substances an ignorant patentee had included air. It is sufficient if he expresses himself in such a way that the world at large could not misunderstand him.

The first question is, what is the spirit of this invention? The answer any man must give on reading the specification is this. The spirit of the invention is to construct a table, the surface of which shall consist of pieces, which pieces shall diverge from a common centre, using that expression in perhaps the loose and inaccurate, but still very intelligible sense, and then that there shall be filling pieces to fill up the interstices. That is the spirit of the invention. When you have got that, as Mr. Jupe says himself, “having thus generally stated the nature of the invention, and the object to be obtained, I would remark that there are various mechanical arrangements by which the invention may be performed.” Does he lay any claim to the mode in which that is to be done? He must give you some mode of doing it, otherwise his patent would be for the principle. He must show you how to do it; but he says, I do not claim anything as to the mode of doing it; exactly as if in the gas meter the inventor had said, my mode of doing it is on this principle—you collect the gas and water in two cells, you make them communicate with each other so that one point shall open and the other be locked in a certain section, which will create a rotary motion; the effect will be, you can measure by the number of rotations the quantity of gas that has passed in and has passed out. Suppose he had said, but I lay no claim to the particular mode of doing this, because when once you have the principle, you may do it in ten thousand various ways. If he had merely said that, without pointing out the way, so that a practical man taking the specification had a mode put before him by which he could do it, however brilliant the invention, however illustrative of the genius of the person who had discovered it, it would not have been sufficient. He says, there are various mechanical arrangements by which the invention may be performed. Is it possible for a patentee more distinctly to have stated what he claimed? He says, what I claim is my improvement in the making of a table, the surface of which shall be in sections, which sections shall diverge from a common centre, and which shall be made a large table by filling up the

*Sir F. Pollock
& Richards
against the rule.*

*Some mode
must always be
given.*

*Argument on
rule for a non-
suit, or new trial.*

interstices, and as the details are in part mine, I will show you how it can be done, and will give you a piece of mechanism my servant has given me, but I claim nothing about that (e): all I claim as the spirit of my invention is separating the table from this centre, and filling up certain spaces so left with intermediate parts. Then he gives a mere description of the drawings. Now, I will not occupy your lordships' time by reading this over; it does not appear to me any part of that throws the least light upon the invention. It was said, if that were all meant to be claimed, the specification might have been in a nutshell. Not so. However plain the principle may be, and however obvious when so given to the public, still the patentee must take care to lay it before the public in a practical shape, though he assumes to himself nothing in respect of that shape.

[*Alderson, B.*: You put it very much on the same footing as Chief Justice Eyre in the case of Bull and Boulton.] That is shortly expressing the whole matter I am going upon, and I feel confident that your lordships will read this specification for the purpose of ascertaining what it was the party intended to claim. You will see he did not mean to claim the mechanical part in the remotest degree—nothing beyond the surface of the table. His invention was merely making a table expanding in that particular fashion, which, according to all the experience of persons who have seen tables, is perfectly novel; such a mode had never been seen as that which Mr. Jupe gave out to the world by this patent. The specification describes not only the mode by which he did it, but the mode he obtained from his foreman; but he makes no claim to that whatever. Is it to be said, if a man has discovered a principle, and goes to a mechanic and says—"This is my view of an invention, just give me a little mechanical assistance in bringing that into effect;" and the man says, "I think you might do it thus, and thus;"—is it to be said that person, who had merely supplied, you might say, the tools or the materials, has a right to claim such invention? (f) Suppose a man not skilled in mechanics were to perceive some obvious inconvenience in any of the common articles of life,—a carriage, a vessel, a ship used for particular purposes,—and he

(e) The following was the evidence on this point. Joseph Reid said: "I am a machinist, and was applied to by the plaintiff to make a model of a table for him. He brought me a pattern made in card board. There was no machinery underneath in the first model to make the parts diverge. Plaintiff's application to me was to adapt some machine to make the sections move simultaneously. His model only drew out by hand. He did not give me any model of machinery, but only a card divided into four pieces, and desired me to construct some machine to effect that mechanically instead of by the hand. The defendant's table acts on precisely the same principle as plaintiff's.

The defendant's machinery is not the same in principle as my machinery. It is only adapted from Gillow's patent slides. The principle of the defendant's machinery is different from plaintiff's. His is only Gillow's principle—Gillow's being slides. The principle of expansion is the same in plaintiff's and defendant's table; looking at the plans of the table it is the same exactly. In both tables the pieces radiate from one common centre. I suggested the mode of making them move simultaneously. The table is quite perfect without that machinery."

(f) As to this, see *ante* 132, n. c.

mere to go to a mechanical man, and say, "I have for some time had an idea of something that would be an improvement if such a matter could be achieved; I do not understand mechanics, but the invention is mine." Will any man tell me, that a man so applied to, and assisting the party in one mode of the hundreds, could be considered as preventing the inventor from taking out a patent with his perfect concurrence? The invention here is not the mode, but the thing itself. [Lord Abinger, C. B.: What is the thing itself?] The table that expands from a centre, that enlarges by diverging from a centre.

From the concluding part of the specification it is clear, that Mr. Jupe does not claim the mode, or any particular fashion of the table, or particular machinery. He distinctly disclaims every thing but separating the table into the parts in the manner described.

Now, the third plea sets out the specification, and avers, that the plaintiff did not describe the nature of his invention; and it is now plain, that the question is reduced to this, whether the plaintiff can have a patent for an invention merely consisting of that mode of dividing the surface, embodying one mode his own, another suggested to him and not his own, but which may be done in a variety of ways. That question is on the record. If that which the party claims is that for which he cannot have a patent, the defendants will have the benefit of the revision of a court of error. [Alderson, B.: The specification sets out a quantity of machinery which, unless you come to evidence, must be taken to be the invention of the party.] Whether the mechanical parts are the invention or not, cannot depend on the evidence, but on what is stated in the specification. This is one of those questions so eminently within a jury's province, that the court will not grant a new trial when the defendant did not call any witnesses. The real question is, whether, on the evidence as it stands, the jury have found a wrong verdict on the issue of not guilty.

The specification is good. The spirit of the patent is for the separating and widening the surface of the table. That is unanswered. As to the mode of doing it, the plaintiff claims nothing in right of it. He added one of the modes as his invention, the other is not; but the other is doing that simultaneously, the mechanism of which he has nothing at all to do with. It is the invention of his servant. It is no improvement under his patent. It is said, if that be so, the defendant is entitled to a verdict on the third issue. The specification clearly describes what it was intended to take out a patent for, and all the witnesses say the object was dividing, diverging, and filling up. [Alderson, B.: If they had made it long one way, and diverging in another, and widening in another, so that the width is not equal to the length, then it is no infringement.] It is not quite

Sir F. Pollock & Richards
against the rule.

*Argument on
rule for a non-
suit, or new
trial.*

so, because from the drawings your lordships would find, that there are some oval tables. [*Alderson, B.*: It does not operate on oval tables.] Yes; and that is what Mr. Jupe means in that part of his specification, "that sometimes they did not accurately diverge in a radial line"—some oval tables, some oblong, with the principle of diverging away from a centre. [*Lord Abinger, C. B.*: Do you apply the rule also to a sofa table?] Yes, certainly. [*Alderson, B.*: A square may be operated on in the same way.] That is a specimen of an oblong table. The principle is equally applicable—the title of the patent, and the statement of it. It is not for an expanding circular table—it is for an expanding table; expanding, not from the outside, but the inside. [*Alderson, B.*: You adapt it to figures that have no centre at all; I should have thought it must be circular.] Mechanics speak of a centre of a square or of an oblong. [*Lord Abinger, C. B.*: But then your pieces would not diverge from that centre.] They diverge from that which in common parlance would be called a centre; therefore, I say, in reading the specification, and seeing the spirit of the invention, your lordships would say, if on the face of it the thing cannot be—that a person cannot have a patent for that sort of invention, then they would have the benefit of it upon the record; but upon the other part, namely, the piracy, the utmost the defendants could have, would be a new trial, upon the payment of costs; and I submit, that if a party obviously endeavoured to infringe, and he is called upon to establish his case, he has no right to take the chances of the day, and then ask for a new trial.

M. D. Hill, Q. C., & Hoggins: The question is, what has the plaintiff invented? It appears that the plaintiff carries to his workman a piece of card cut into four pieces, and says, I want something done by which this card may be made into an expanding table. [*Alderson, B.*: The only issue on the third plea is, whether the specification truly describes the actual mode by which it is carried into effect; but leaves untouched the validity of the invention—that depends on the second issue.] It is clear, that if the specification be viewed according to common sense, the twenty-three figures were not given for the purpose of exemplifying a principle. Lord Chief Justice Eyre, in *Boulton and Watt v. Bull*, says that the commonest explanation by which a principle was announced would have been sufficient. [*Alderson, B.*: That would not have done without some actual contrivance by which it was effected.] Suppose Watt, instead of making the multitude of experiments, had said it would be better, instead of condensing steam in a cylinder, by introducing cold water, to let the condensing go on in a separate place. The bringing this to perfection was the labour and glory of a life. It is conceded that there cannot be a patent for a barren principle. [*Alderson, B.*: It all arose upon the question, whether the prin-

ciple is not a new manufacture. The moment it was given out in the shape of a steam engine, the court held it was a new manufacture.] The cutting a card into four pieces, and saying, make it into a table, is not a new manufacture. [*Alderson, B.*: Is not an expanding table a new manufacture, although the table part is old?] The specification claims the machinery. [*Lord Abinger, C. B.*: There is sufficient doubt about that to make it questionable.] [*Alderson, B.*: Look at the last part of the specification. You had better consider before the new trial, whether you have got a plea to raise the question whether this goes to the principle; I doubt whether you have any such plea. The first plea merely raises the question of infringement. The fourth is for a new invention; it may be a new invention; you had better look into it. A great number of pleas which I see drawn will require great consideration. A great many say the invention is not useful; they ought to say it is prejudicial, as in *Arkwright's* case; whether that be a good patent or not, as specified—whether the patent is for a principle or not—is a question you do not raise by the plea.] [*Lord Abinger, C. B.*: Perhaps the way to look at it is this: he says, I have found out that you may divide a table into four sections or more, and make them expand from a common centre, and so make a large table; therefore, that is my invention; I find it may be done by several mechanical means; I thought it might be useful when done, and I have discovered it may be done; therefore no matter by whatever means you do it, provided you adopt the principle of making the divergence from a common centre by a radial line. Whether that be the construction does not arise upon these pleadings.] That is not his specification. It appears to me the specification does claim a physical mode. [*Alderson, B.*: Then that is raised by the issue whether it is new. I should entertain great doubt whether any thing more is claimed than an expanded table, and whether the contrivance is any part of the invention. The new rules make it very necessary to consider very accurately what pleas you should make, now you are confined by the pleadings. You will find a great number of dicta given by the judges, and it is probable that something may arise out of the provision that an invention, if prejudicial, is not to be the subject of a patent. I agree that if a patent is not useful, it may not be prejudicial; therefore you ought not to plead that it is not useful (g).]

Rule absolute for a new trial on payment of costs (h).

(g) It would appear from the opinion here expressed, that the invalidity of a patent in respect of its subject-matter, that is, as to whether the patent is for an abstract principle, so far as that question is matter of plea, is not raised by the plea denying the novelty of the invention. The proper plea to

raise this point was much discussed in the recent case of *Walton v. Potter*, but this, as well as the proper plea to raise the question of want of utility, has not been the subject of solemn decision. See *Law & Practice*, Pr. F. XXI, notes x and y.

(h) No further proceedings have taken place.

DEROSNE'S PATENT.

Title. Letters patent to Charles Derosne, 29th September, 1830, for "certain improvements in extracting sugar or syrup from cane juice and other substances containing sugar, and in refining sugar and syrup."

Specification.
29th Nov. 1834. I, the said Charles Derosne, do hereby describe the manner in which the said invention is to be performed by the following description thereof: that is to say—The invention consists in a means of discolouring syrups of every description by means of charcoal, produced by the distillation of bituminous schistus, alone, or mixed with animal charcoal, and even of animal charcoal alone: whatever sort of charcoal it may be, it must be disposed on beds, very thick, on a filter of any suitable form. The filter of itself has nothing particular, and does not form the object of the patent, because it is already known and used for other purposes, but till now it has not been employed for discolouring syrups. To obtain the discoloration I put the charcoal in a case, in which I place, at a distance of about an inch from the bottom, a metallic diaphragm, pierced with a great number of holes; I then place upon this diaphragm a clear and coarse linen or woollen cloth, which exactly covers it; I then place upon this cloth a bed of charcoal of bituminous schistus, alone, or mixed with animal charcoal, or animal charcoal alone. Whatever it may be, this charcoal ought to be in a state of division, in order that it may be well penetrated with the syrup which is intended to be filtered. Charcoal in fine powder would not be penetrated by the syrup. It has been found that the charcoal reduced to the size of fine gunpowder is very fit for this operation; if the grain is too large, the filtration would be operated too rapidly. I lightly press the charcoal, and then again place new beds of the same charcoal, which should likewise be pressed till it has come up to the height of fifteen or sixteen inches. It may be made higher if found necessary, or it may be less, but the discolouring effect will be always in proportion to the thickness of the bed of charcoal. When the charcoal is disposed to the proper thickness, it is to be covered with another metallic diaphragm, pierced likewise with holes, upon which is spread another clear linen cloth; it is upon this cloth on which is poured the syrup, which is destined to be discoloured. The syrup ought then to form a bed of several inches thick, from four to eight, although there is no precise rule. For operating well in the filtration of syrups, the syrup ought to be clear before pouring it upon the filter, and ought to have undergone a first filtration by the known means. The point to be obtained by the filtration through the thick beds of

It is only the discoloration of syrups. The syrup to be *Specification.* ought not to pass over the consistence, which is properly two-thirds of sugar and one-third of water; but it is filtered at any less degree of consistency, according to what is required. When the syrup is hot, the filtration operates great deal more rapidly. In operating on a great scale, a cask filled with syrup can furnish several filters at a time as of cock-balls placed in each filter. The first portion of syrup which passes through the filter is always the most clear, and by the time the colouring part combines itself with the charcoal, the effect of the last portion becomes less. The portion of syrups which preserves a part of its colour after its filtration can be passed again upon another filter of charcoal in another filter, and by this means it may be obtained in a great degree of purification. Whatever the filter used, it is desirable to mix the charcoal with about one-third part of its weight of water, before putting it in the filter. The place of that water is occupied by the syrup which passes the beds of charcoal, and then the water comes the surface. It has a disagreeable and salted taste when the animal charcoal is used; the water after that comes mixed with a porous syrup, and soon after it is displaced by the pure syrup. The charcoal has been deprived of its discoloring effect, and is then used on the filter for dissolving or displacing the syrup which is mixed with the charcoal; the syrup then comes pure and clear after that, mixed with more or less water, using as much water as possible. It is convenient to suspend occasionally the effusion of water on the upper part of the filter, and to stop the cock. The syrup being heavier than the water gains possession of the filter and runs first. The syrups made with sugar by this process can be made as clear as water. The syrups are deprived of their bad taste, and are converted into a kind of syrups of a clear and yellow colour. The syrups from which it is desired to separate colouring matter can be obtained directly from the juice of cane or beet-root, or from the colouring matter produced by the action of sulphuric acid upon mucous matters, before these juices or liquids have been used for extracting the sugar. The syrup may likewise be properly used for the solution of all kinds of sugar, and of the products of sugar of quality which are obtained in sugar refining under the name of "bastards" and other sugars. The purpose of producing syrups may be to sell them in such a state for the ordinary consumption, or to bake them for making sugar whiter than is obtained by the common process; or these whitened syrups may be used for discolouring the refined sugar, in making them filter. The invention being for replacing the use of the earth and water. The effect of the invention being to obtain discoloured syrups by the means above described, the discoloration of syrups is

Specification. always proportionate to their primitive coloration, and to the quantity of charcoal which is used.

The carbonization of bituminous schistus has nothing particular; it is produced in closed vessels, as is done for producing animal charcoal, only it is convenient before the carbonization to separate from the bituminous schistus the sulphurets of iron which are mixed with it. Instead of using the schistus or animal charcoal of the size of gunpowder, it can be reduced to a powder still more fine. Mixed with sand in this state a given quantity of charcoal discolours better than powdered less fine, but the filtration is slower and more difficult to be regulated. After having tried this first method I have given the preference to the other mode; but both of them are the object of the patent.

In witness, &c.

DEROSNE v. FAIRIE AND OTHERS.

Cor. Lord Abinger, C. B. Hil. Vac. 1835.

Declaration. The declaration assigned as a breach the using the said invention without the license of the plaintiff.

Pleas. The defendants pleaded, 1st, Not guilty; 2d, That the plaintiff was not the true and first inventor of the said improvements; 3d, That the plaintiff did not, by any instrument in writing, particularly describe and ascertain the nature of the said invention, and in what manner the same was to be performed; 4th, That the plaintiff did not cause any instrument in writing, particularly describing and ascertaining the nature of the said invention, and in what manner the same was to be performed, to be enrolled in his Majesty's High Court of Chancery in manner and form, &c. (a). On the above pleas issue was taken.

Plaintiff's case. Sir J. Campbell (*Ludlow*, Serjt., and *Godson* were with him) for the plaintiff. The plaintiff is a foreigner of great science, who has devoted himself to improvements in the manufacture of sugar. Various expedients have been resorted to for getting rid of

(a) This plea would appear to have been pleaded to raise the question, whether the specification was enrolled in time. The patent was dated 29th September, 1830, and the specification was enrolled 29th November, 1830; the proviso being, that the enrolment should take place "within two calendar months next and immediately" after the date of the said letters patent. It was objected that the specification was not in time, but the learned Chief Baron overruled the objection. It was held in

Watson v. Pears,

the proviso being for enrolment within one calendar

month after the date of the patent, that the month did not begin to run till the day after the date of the patent, and that the patent being dated on the 10th of May, the specification enrolled on the 10th of June, was in time. 2 Camp. 294.

But where the computation of time is to be made from an act done, the day on which the act is done is to be included in the reckoning. *Ibid.*

As to what is in issue under this plea, see *Law & Practice*, Pr. F. XXI, n. t.

purities and colouring matter of the cane juice, or when the state of raw sugar imported from the West Indies. Mr. Fairie's bags have been employed for this purpose; these bags remove some portion of the impurity, but much impurity and colouring matter remains, and to get rid of this, bullocks' whites of eggs, and other things, are employed with parsimony. Charcoal was at last thought of, and, in 1814, Mr. Derosne had a patent for the use of charcoal, and his method consisted in throwing the charcoal, in a state of powder, into the syrup.

The objections to this method were, that a considerable quantity of charcoal was lost, and adhered to the syrup, which consequently was not drawn off in the pure state it ought to be in.

The plaintiff's invention consists in using a bed of charcoal; applicable not only in the refinement of sugar in this country, but in making the cane juice into raw sugar in the West Indies. The first process in making sugar is to bruise the cane and extract the juice. The juice is then passed through beds of charcoal before granulation. By this invention refined sugar may be made from potatoes, beet-root, or molasses.

The defendants imitate the plaintiff's invention; they pass the syrup through Schroder's bags, and receive it into vessels below, the bottom of which is a bed of charcoal, through which the syrup passes.

A witness was called for the plaintiff, who, on the *voir dire*, ^{Plaintiff's evidence.} testified that he had a license from the plaintiff to use the invention.

Schroder objected to his competency, on the ground that he was interested in the continuance of the monopoly under the patent, which a verdict for the defendants would destroy.

J. Campbell: This verdict would not affect, and could not be taken in evidence against, the witness. The patent may be infringed, though the defendants should have the verdict.

LABINGER, C.B.: The witness might possibly be benefitted by the destruction of the patent; at all events he could not be injured by this verdict. In any controversy arising between him and the plaintiff, it is obvious that he could not be benefitted by a verdict for the plaintiff; and as to the action for the infringement of the patent, no action at all could be maintained against the witness, and he could maintain no action against any person for the use of the invention, inasmuch as he has a mere license. (b).

J. Pollock, A. G. (*Crowder* was with him) for the defend-

the witness was examined. The novelty of the plaintiff's invention were clearly shown, and the nature of the evidence as to the

sufficiency of the specification will appear from the Chief Baron's summing up, and the judgment of the court on the rule for a new trial.

Defendant's case.

ants. The plaintiff's patent is taken out for two different things, the extracting of sugar, and the refining of sugar so extracted; the real object of the invention being merely to filter the sugar so extracted, and to take out the colouring matter from it, and to render it fit for the market as fine loaf sugar. The specification, therefore, and the letters patent, are inconsistent. Secondly, The specification does not show how the invention is to be applied to cane juice, and is in that respect insufficient. Thirdly, As to the bituminous schistus, no proportions are specified. There are many varieties, and it has not been explained how it is to be distilled, or in what manner the sulphurets of iron can be expelled; and the plaintiff has not shown that the specification is sufficient to enable a person to practise the invention. Upon these grounds the plaintiff should be nonsuited.

The construction of the letters patent and specification, except as to terms of art, is for the court.

Lord ABINGER, C. B.: Gentlemen of the jury: It is unnecessary to trouble you with any objection that arises on the face of the patent and the specification, because, as these are matters of construction, and, therefore, matters of law, they cannot in any way be assisted by the verdict, unless, indeed, terms of art are explained by evidence, and then it would be for you to consider whether the evidence produced satisfies you that the terms of art were used in the sense put upon them. Nothing of this kind necessarily arises in this case, and questions arising on the comparison of different parts of the specification with each other, or of the specification with the patent, will be reserved for another occasion.

The infringement has been sufficiently proved by the admission of the defendants' counsel; they cannot, therefore, sustain the defence on that plea.

The next plea is, that the plaintiff was not, at the time of granting the said letters patent, the true and first inventor; now no evidence is given that any other person, before the date of the plaintiff's patent, ever applied in use the particular mode of filtering syrup, which this patent was intended to introduce; and in the absence of such evidence you will be warranted in finding the second issue for the plaintiff (c).

But the great question turns on the third and fourth issues, which are much the same except as to the question of time, which has been disposed of (d). The issue then which you have to try, is, whether the plaintiff has given a full and clear account, sufficient for the purpose of the practice of the invention. It must be admitted that the specification is obscure. The gentle-

(c) The plaintiff's witnesses were cross-examined as to the fact, whether in the use of charcoal according to Martineau's patent the powdered charcoal did not become precipitated, and form a bed in some cases of two or three inches thick, so that the filtration, the subject of the plain-

tiff's patent, had in fact taken place, and the liquor percolating through a bed of charcoal came away perfectly clear. No objection founded on this, however, was relied on. See ante 110, n. m.

(d) See ante 154, n. a.

man who composed it is not an Englishman, and he uses the word "baked" evidently for boiling, and the word "discoloration" for discharge from colour; but all that is conceded; one would not be disposed, from any obscure word in the specification, which might be interpreted in favour of the plaintiff, taking it altogether, to deprive him of his patent. But the specific point requiring your attention is, as to the bituminous schistus, whether the plaintiff has fairly communicated to the world engaged in this sort of trade, what his object was. For he must give a full and true disclosure of the nature of the invention, and if he leaves any part of his invention in a state of obscurity, and does not give definite directions how to perform it, he loses the advantage of his patent. The bituminous schistus is put first, and forms, undoubtedly, a very important part of the invention, and persons not acquainted with the sciences may be well excused for not knowing what bituminous schistus is, and *prima facie* it is no objection to the specification that those terms must be explained by some men of art. Mr. Faraday and the other chemists say, there are many kinds of bituminous schistus, that they vary very much in the quantity of the sulphuret of iron which they contain, and that they do not know any process by which the sulphuret of iron can be completely expelled. The plaintiff says the sulphuret of iron ought to be expelled, but he does not state which of the various bituminous schistuses he uses, or any process of expelling the sulphuret of iron. Now if a person should suppose that any bituminous schistus would answer the purpose, and were to take one mixed with the sulphuret of iron, being unacquainted with the nature of it, and should attempt to distil it for the purpose of producing charcoal, he might involve himself in considerable expense, and his object would be frustrated. On the other hand, if you should find it in evidence that there is no bituminous schistus that is proved to be used, except that which the plaintiff himself supplies, and if you should consequently think that it was not improbable he contemplated the use of his own, that might be a reason for his being so general; that as no party could find in England the sort which would answer the purpose, he might apply to the plaintiff who manufactured it abroad, to get it for him. But if such was his intention, that would destroy the patent.

The question for your consideration is one of fact, whether you are satisfied upon the subject of the bituminous schistus(e). This part I think doubtful, but the rest of the case is with the plaintiff. I presume you would suppose that any chemist would know what bituminous schistus meant; but the evidence is that

The inaccurate use of words, if sense sufficiently clear, will not vitiate a specification.

(e) The learned Chief Baron proceeded to call attention to the evidence as to the schistus, as to the nature and general effect of which, see (post) in

the judgments on the rule for a new trial. A full report of the evidence is contained in the Repertory of Patent Inventions for March, 1835.

Lord Abinger,
C. B., to the
jury.

there are various sorts, and that there is none in England capable of being produced without the sulphuret of iron by any process known to experienced chemists. It may be known in France, there may be various substances there capable of producing it by calcination; if the plaintiff has it there it is very likely he might suppose that it might be found any where capable of performing the object; it is his misfortune that he had not inquired whether this country produced the same; in that case he might have stated that such schistus might be imported from France, and that would have made the patent good. Supposing you are of opinion that there are various bituminous schistuses which might not equally answer the purpose, and that those not being set forth in the specification, it is probable that any person using the specification would be obliged to have recourse to the plaintiff to procure it, I think the defendants are entitled to your verdict.

Verdict.

The jury found a verdict for the plaintiff, stating, in a reply to a question from the Lord Chief Baron, that they were satisfied upon the evidence that the bituminous schistus obtained in England might be adopted.

In the Exchequer.
Eas. T. 1835.

Cor. Lord Abinger, C. B., Parke, B., Bolland, B., Alderson, B.

Sir F. Pollock having obtained a rule *nisi* for entering a nonsuit, upon the objections taken at the trial (*ante* 156), Sir J. Campbell, A. G., Ludlow, Serjt., and Godson, showed cause.

There is on this record no plea to raise the question of a defective title; under the plea alleging the insufficiency of the specification, the defendants are not at liberty to attack the title. The title is good in all its parts, for the extraction of sugar was not complete until the syrup had granulated; and this process could be applied whilst the cane juice was in the state of syrup; and in extracting sugar from beet-root, was proved to have been always applied before the sugar was formed. As to the application of the invention to cane juice, that it was never intended to be so applied until it was boiled and became syrup, and in that state it was beneficial and useful. As to the bituminous schistus, the words of the specification are, "the carbonization of bituminous schistus has nothing particular; it is produced in close vessels, as is done for producing animal charcoal, only it is convenient, before the carbonization, to separate from the bituminous schistus the sulphurets of iron which are mixed with it" (a). The schistus is mechanically not chemically combined

(a) As to this, it was distinctly stated by several eminent chemists, that the sulphuret of iron could

not be got rid of by any means generally known or easily practised. *Ante* 167.

the iron, and, therefore, the iron could not be prejudicial to the sugar; and, further, the iron could be removed by a simple mechanical operation of breaking the schistus, and getting out the nodules of iron which were generally found in it. It would, therefore, have been improper to have given a description of so easy an operation (b). And that, at all events, supposing the schistus not completely to answer the specified purpose, it was new; and it has been decided, that although every part of an invention must be new, yet every part need not be new (c). Besides, there was no evidence to show that the schistus could not be used to some extent.

F. Pollock, Sir W. Follett, and Crowder, in support of the verdict, were stopped by the court.

JUDGMENT OF LORD ABINGER, C. B.: The doubt which the court has had is, what rule they should pronounce in this case as to the admissibility of the evidence. Certainly, my impression at the trial was, that I ought to have nonsuited the plaintiff; but I was very anxious to avoid the possibility of withdrawing any thing from the jury, even a *scintilla* of evidence, in order to avert the necessity of another trial, and, in a case like the present, must be attended with great inconvenience to the parties. But I am free to own that, although I decided to nonsuit the plaintiff after the close of his case, I felt very strongly that there really was no evidence to go to the jury. It was incumbent on the plaintiff, after the evidence given by his own witnesses, to have proved that bituminous schistus, as found in this country, might be used without detriment, after having been exposed to the process of distillation, as he describes, but without removing the iron. I well remember that Sir F. Pollock had taken the objection very strongly, and that it had been proved in the cause that the presence of iron was disadvantageous, and admitted to be disadvantageous, not in the qualified sense in which it has been urged on this occasion, but that although it rendered the process less efficacious, it did not deprive it of all efficacy, but that the presence of it was positively injurious. I so understood it, and I must do the defendant the justice of saying that such was my understanding of it, on the representation of both sides. With that understanding I felt that the plaintiff was bound either to have shown that there was some known process of extracting it, which he did not, or to have shown that there was some bituminous schistus which might be found in England, with the iron not entirely excluded, that yet might be used with effect; and on looking to my own mind, I could not find any such evidence. Mr. Derosne's agent had been examined at great length, and gave his evidence in

The case of *Savory v. Price*, ante 83, was in support of this argument, but it hardly applied to the circumstances of the present case.

(c) The cases here referred to are *Lewis v. Marshall*, 10 B. & C. 22, and *Haworth v. Hardcastle*, 1 Bing. N. C. 182. As to these, see ante 42, n.

Rule for a new trial.

Party entitled in law to a nonsuit ought not to pay the costs of a new trial.

rather an irregular manner, so as to make it very difficult to take it down on my notes; and from the short note I took of that witness's evidence, I felt some doubt in my own mind whether he had not stated some fact which had escaped me at the time, which, on further investigation, might supply that defect in some minute degree; and I must own it was more with that impression that I left the case to the jury, than on any conviction of my own mind that the plaintiff had made out a case; and then I wrote the note which I have read, that if I was wrong in leaving it to the jury, the defendants' counsel should have the benefit of it on moving for a nonsuit. Now, that being the case, I cannot but feel that the defendants are placed in the situation, by my having so acted, of being compelled to make this motion. If I had nonsuited the plaintiff, he then must have applied to the court, and suggested any misunderstanding that had arisen at the trial, for the purpose of obtaining a new trial; or he might have stated that he himself was surprised by the objection, and could have answered it by evidence, if he had been fully aware of it; that is, that had the plaintiff's counsel been aware that the defendants meant to make this sort of objection, that bituminous schistus, such as is found in England, could not be used with advantage in this process, he would have had abundant evidence to rebut it. If I remember rightly, that was suggested at the close of my summing up. Now, the question is, on what terms we ought to allow this inquiry, and it appears to me, that as the defendants were entitled to a nonsuit, and would be entitled to a nonsuit if it were not for that suggestion, they ought not to pay the costs of the new trial. Then a question has arisen, whether, if there was any real misunderstanding, the plaintiff ought to pay the costs of the new trial? It is plain, that if I had nonsuited the plaintiff, and he had applied to set aside the nonsuit, and there had been nothing irregular or improper in the conduct of the defendants, he would have had to pay the costs of the new trial. The reason the court is induced to grant a new trial is, to have the matter more fully explained as to what is the use of the bituminous schistus, and what was the real effect of it in its operation; and that being the case, the court is disposed to pronounce this rule. I will first state the rule which the court is disposed to pronounce, and will then state some reasons why we have come to that judgment. The rule will be—that the verdict should be set aside, that a new trial should be had, and that the costs of the new trial shall be costs in the cause if the defendants obtain a verdict finally, but shall not be costs in the cause if the plaintiff obtains a verdict. The new trial is granted for the plaintiff's benefit, to enable him to make out the case which he failed in doing at the first trial. We think it right,

however, to dispose of some of the objections that have been made. *Rule for a new trial.*

One objection to the plaintiff's specification is rested on the ground, that it does not set forth that double process which was to be expected from the title of the patent. It is unnecessary now to solve that difficulty, as the court doubts whether or not, since the new rules of pleading, that objection is fairly let in by the present pleas. The objection is, that the plea states the plaintiff's specification to be insufficient, whereas it is said, that, supposing we think it adequate, it is sufficient to describe the invention that he really had made, even if it be not sufficient to describe the second branch of the invention set forth in this patent; and the defendants may avail themselves of the objection, that the plaintiff has taken out a patent too large for his invention, by putting in an additional plea in a different form from that stated on this record. We do not think the question necessarily arises at present, or that it calls for an ultimate decision; because we think, on consideration, that the double process, or both the branches of the invention mentioned in the patent, are sufficiently described in the specification. I have come to that conclusion in consequence of the discussion on this motion. The patent purports to be a patent for an improvement in extracting sugar from the cane juice, as well as the refining of sugar subsequently. Now, it appeared on the evidence, that the only attempt to use it, when applied to the cane juice before it was boiled, failed; but I think, on the investigation to-day, it does appear, though it is very awkwardly expressed, that he did mean in his specification to embrace both branches of the title of his invention, in this way—I mean to apply my invention to the refining of sugar by melting the muscovado (or granulated) sugar, and bringing it into syrup, and then applying the invention to it, or by applying it in the process of extracting the sugar from the cane juice before it is baked and made into syrup. Mr. Godson has given a satisfactory solution of that obscure passage in his client's specification, and rendered it more satisfactory by the words immediately following, because he presented in opposition the case of extracting sugar from the cane juice, and of refining the sugar after it has been boiled and manufactured into muscovado sugar; and, therefore, construing it with that view, it appears to me that he meant to use the word "extract" in the sense in which the chemists, who were called as witnesses, said they understood it, and that he meant also to extract sugar or syrup from the juice before it is baked and made sugar; but it is in evidence that it is made into syrup before it comes into that degree of baking, by the action of fire, as to make it granulate; it is made into syrup after it has derived a certain consistency by passing one, two, or three coppers, but it must pass through two others

The objection that the title is larger than the invention, not raised by the plea of the insufficiency of the specification.

Lord Abinger,
C. B.

An improve-
ment in the final
result is also an
improvement in
every intermedi-
ate process.

before it is in a state to granulate, and to be made sugar; therefore I think the expression "extract" may be fairly understood to mean the process to be applied with advantage to the extracting of syrup from cane juice, before it arrives at that consistency at which granulation takes place, so as to make it into sugar; and with that explanation I think the objection that was made is removed. Supposing the specification is good in other respects as compared with the evidence, on the face of it it must be understood to be a specification of both branches of that invention, and if so that objection is removed. I think also the word "improvements" was relied on as being in the plural number; but that is of no consequence, because he may mean that every part of his process is to be treated as an improvement. It is a phrase that may be reconciled to the fact, because syrup, in the proper meaning of the word, is not extracted from the cane juice any more than sugar is; but in the process of what is called extracting sugar from the cane juice, it is made into syrup, and, therefore, if it is an improvement in extracting sugar, *a fortiori* it may be said to be an improvement in extracting syrup.

If a substance
as generally
known contains
a foreign matter,
it must be shown
either that such
foreign matter is
not detrimental,
or that it can be
easily removed.

Upon the main point, however, that respecting the bituminous schistus, nothing that I have heard has removed my original impression, that there was no evidence to show that this process, carried on with bituminous schistus combined with any iron whatsoever, would answer at all. The plaintiff himself has declared that in that bituminous schistus which he himself furnished, the whole of the iron was extracted; and it appears that it was admitted by the counsel that the presence of iron would not only be disadvantageous, but injurious. Thus then it appearing by the evidence that in all the various forms in which the article exists in this country, sulphuret of iron is found, and the witnesses not describing any known process by which it can be extracted, it appears to me that the plaintiff ought to prove one of two things—either that the sulphuret of iron in bituminous schistus is not so absolutely detrimental as to make its presence disadvantageous to the process (in which case this patent would be good), or that the process of extracting the iron from it is so simple and well known, that a man may be able to accomplish it with ease. As the bituminous schistus which was procured and used was exclusively that which was furnished by the plaintiff, not in its original state, but after it had undergone distillation, and been made into charcoal in a foreign country, and as in that stage of its preparation it could not be discovered by examining it whether it was made from one substance or another (the residuum, after distillation, of almost every matter, vegetable as well as animal, being a charcoal mixed more or less with other things), then there is only the plaintiff's statement to prove that the substance which was furnished by him and used, was charcoal of bituminous schistus. It appeared, also, that he

had declared to one of the witnesses that he had extracted all the iron from the substance so sent, and that it also underwent another process. I am, therefore, of opinion, that without considering whether or not the patent would be avoided by the process requiring the use of means to extract the iron from the bituminous schistus, which were kept secret by the patentee, he has not shown in this case that what he has described in the patent could be used as so described, without injury to the matter going through the process. Under all these circumstances, I think that the plaintiff ought to have given some evidence to show that bituminous schistus, in the state in which it is found and known in England, could be used in this process with advantage, and as he has not done that the defendants are entitled to a nonsuit; but, at the same time, as it is alleged that the plaintiff may supply the defect of proof as to the schistus on a new trial by other evidence, we are desirous that the patent, if a good one, should not be affected by our judgment, and think it right to direct a new trial on the terms which have been stated.

Rule for a new trial.

The plaintiff must show that the substances named will answer the purposes professed.

PARKE, B.: I entirely agree with my Lord Abinger with respect to the construction of the patent. We cannot, on the face of this patent, say that, comparing it with the specification, it is void. The specification does, on the whole, truly describe the nature of the invention, as declared in the patent, nor does there appear to be sufficient obscurity in the clause with reference to the baking to avoid the patent on that ground. But it seems to me to have been clearly the duty of the plaintiff to have done one of two things, viz. either to have shown that bituminous schistus, with the admixture of sulphuret of iron as it is known to exist in England, would answer the purpose beneficially, or that the sulphuret could be removed by any practical man, so as to give no colour to the syrup. Now I have certainly some doubt whether there was not evidence for the jury that a practical man acquainted with the subject might, without much difficulty, effect that removal to such an extent that it might not be sufficient to give any colour to the sugar, and, therefore, not be prejudicial at all; but as my Lord Abinger, upon the evidence before him at the trial, seems to think otherwise on this last point, I entirely concur with him as to the terms on which I think a new trial ought to be granted.

The plaintiff must show that the substance described will answer the purpose beneficially, or that the prejudicial matter can be removed by any practical man.

BOLLAND, B.: I perfectly agree with the view that has been taken of this matter by the court. The objection made was that the title of this patent was too large for the specification. Now, had that appeared to be the fact, I should have felt myself bound by that rule of law which I have always understood to prevail in cases of this sort, viz. that where a title is set out in the patent it is the bounden duty of the patentee to specify the whole set out in that title; but it appears to me, for the reasons that have been already given by Lord Abinger, that the objection to the

Buller, B.

title is sufficiently removed. Very early in the argument it appeared to me that justice could not be done in this case unless we granted a new trial, because on the judge's notes it appeared that no evidence had been given by the plaintiff that bituminous schistus, procured from whatever place in which that substance could be found, would answer the purpose intended. The only evidence which the plaintiff gave that bituminous schistus, when used in the process described, produced the desired effect, applied to a pulverized substance which the witness had purchased from the plaintiff at Paris. Now, if the plaintiff had gone on to show that that substance was bituminous schistus, to which nothing had been done, but that it produced the effect in its natural state, a great portion of the difficulty would have been removed; but that not being proved, it was left in doubt whether all bituminous schistus would produce the effect attributed to it in the patent. Without doubt the onus of that proof lay on the plaintiff. An authority, if wanting, may be found in the judgment of Buller, J., in the very early case of *Turner v. Winter* (a); and that very learned judge added a most extensive acquaintance with the subject of patent right to that knowledge of law in which he was at least equal to any person who, before or since his time, has occupied a seat on the bench. I will, therefore, advert more particularly to his judgment in that case, in order to adopt its terms in application to the present. That patent had been taken out for producing yellow paint, to be applied in the process of painting in oil or in water colour. The patentee attributed to this patent also another quality, viz. making white lead and separating the mineral alkali from the common salt; and Mr. Justice Buller, in giving judgment, said, "I do not agree with the counsel who have argued against the rule, in saying that it was not necessary for the plaintiff to give any evidence to show what the invention was, and that the proof that the specification was improper lay on the defendant; for I hold that a plaintiff must give some evidence to show what his invention was, unless the other side admit that it has been tried and succeeds. But wherever the patentee brings an action on his patent, if the novelty or effect of the invention be disputed, he must show in what his invention consists, and that he produced the effect proposed by the patent in the manner specified. Slight evidence of this on his part is sufficient, and it is then incumbent on the defendant to falsify the specification" (b). In this case the plaintiff contents himself by merely saying, that bituminous schistus will answer the purpose intended; but he ought in my opinion to have gone farther, and shown that any bituminous schistus fairly procured, either from chemists in the habit of selling that article, or in any

The plaintiff must show that the substance named will succeed.

(a) 1 T. R. 602; Dav. Pat. C. 145, and *ante* 77.

(b) See *ante* 81.

other way, would have also sufficed for the purpose intended; *Rule for a new trial.* whereas he has merely shown that the preparation made by himself at Paris (with the ingredients of which we are not at all acquainted, any farther than that he told the witness that the iron had been taken out of it) produced the desired effect; he was bound to have informed the public how the iron was removed from the schistus, or to show that its presence was immaterial. On these grounds, as well as for the reasons given by my Lord Chief Baron, I think a new trial ought to be had.

ALDERSON, B.: I quite agree with the view the rest of the court have taken in this case. The first objection to the validity of the patent arises upon the ground, that the title of the patent is too general, and has been, I think, already answered satisfactorily by the court; and I certainly entertain considerable doubts whether it is open to be taken on these pleadings. With respect to the other point, the question arises on the validity of the specification. Now a specification must state one or more methods *A specification must state at least one method which will succeed.* which can be followed for the purpose of accomplishing and carrying into effect the invention. One of the methods stated in this case is the application of a filter composed of charcoal, formed by the distillation or carbonization of bituminous schistus. It must, therefore, be shown that the purpose will be accomplished by following that method. It appears, too, that there is some little doubt entertained, whether, if iron be present in the charcoal formed from the carbonization of bituminous schistus, the experiment of depriving sugar of colour in this particular manner does not altogether fail. With respect to that, on reading the notes I should have entertained some doubt, but it is much more competent for my Lord to decide than for a judge who was not present at the trial. Certainly if any admission was made that the presence of iron would be a detriment to the operation, without confining that admission to its being a less perfect mode of exhibiting the experiment than otherwise would be the case, that undoubtedly would be a ground for a nonsuit. But had it been shown, either that bituminous schistus, deprived of iron, could be made by a process known to ordinary chemists of skill, or that it was a substance capable of being ordinarily purchased in the market as an article of commerce, it would have been unnecessary to have shown the operation of separating the iron from it; if its presence in the bituminous schistus was a positive detriment to the process of depriving the sugar of colour, then indeed the patent would fail. Under all the circumstances I quite concur in the view the rest of the court have taken, as well as in the terms on which this case ought to go down to another jury.

Rule for a new trial accordingly.

No new trial took place, the plaintiff having entered a disclaimer and memorandum of alteration under the provisions of Lord Brougham's act (5 & 6 W. 4, c. 83, s. 1), which was passed and came into operation almost immediately after the above decision. The plaintiff by this instrument, enrolled 16th August, 1836, substituted as the title of the patent the following: "a certain improvement or certain improvements to be used in the course of the process of extracting sugar or syrup from cane juice and other substances containing sugar, and also to be used in the course of the process of refining sugar and syrup, for the purpose, in either case, of removing the colour from or whitening and purifying such sugar or syrup respectively." The original specification was set forth therein, and another substituted for it,

in which, instead of the term *discoloring*, the terms "removing the colour from or whitening and purifying" were employed. The process to be adopted was described in nearly the same terms, omitting all mention of bituminous schistus, so that the claim was confined to the whitening or purifying the syrups by filtration through beds of granulated animal charcoal. The use of bituminous schistus and of sand was disclaimed, on the ground that the former, as found in England, could not be used so beneficially as the animal charcoal, and that the use of the latter was attended with some practical difficulties. The other alterations were declared to be made for the purpose of rendering the meaning of the specification more clear and intelligible to the public.

GALLOWAY'S PATENT.

Title. Letters patent, 2 July, 1829, to Elijah Galloway, "for certain improvements in steam engines, and in machinery for propelling vessels, which improvements are applicable to other purposes."

Specification. I, the said Elijah Galloway, do hereby declare, that the nature of my said invention consists—First, in an improvement of the steam engine, whereby I am enabled to obtain a rotary motion from the alternating action of the axis of a piston, which piston makes about three-fourths of a revolution within the steam cylinder; and, secondly, in an improvement on paddle wheels for propelling vessels, whereby the float-boards or paddles are made to enter and come out of the water in positions the best adapted, as far as experiments have determined the angle, for giving full effect to the power applied. And I do hereby describe the manner in which my said invention is to be performed by the following description thereof, reference being had to the drawing hereunto annexed, and to the figures and letters marked thereon.

* * * * *

It is only necessary further to add, that the improvement in the steam engine is applicable to engines for driving machinery on land, and for raising water, as well as for marine purposes; and that the improvement in the paddle wheels may be applied to undershot water wheels as well as for propelling vessels.

Claim. Now whereas I claim as my invention—First, as regards my

(a) Here follows the description of the drawings; the first part describing that part of the invention which relates to steam engines, and the second part that which relates to paddle wheels,

or machinery for propelling vessels. The portions material for understanding the subsequent legal proceedings, are sufficiently set forth in the summing up of the learned judge. *Post.*

ment in steam engines, the mode of obtaining a rotary from an alternate motion of the piston, by means of the the mortice *n*, and the pin or bearing *i*, or by means of banism or combination of levers shown at figure 4; and, as regards my improvements on machinery for pro-vessels, the mode hereinbefore described of giving the angle to the paddles by means of the rods *g*, *h*, *i*, *j*, and ent stems marked *f*, the disc *A*, and the crank *b*.

In witness, &c.

provements in the machinery for pro-sels, consisted in a mode of constructing wheels, so that the floats might enter the water at any required angle; the *n* does not profess to give any directions est angle, but only to point out the me-neans by which the selected angle may l in practice. See *per* Alderson, B.,

ommon wheel, the paddle or float-board surface obliquely, the consequence of shock on entering, and a lifting of the il water on quitting, the water; whence able loss of power, and an unpleasant motion in the vessel. It has been at- obviate these inconveniences by imi- the paddles or floats the feathering of in's oar, and to give to the floats a cer-of position.

anan (18 October, 1813) had a patent ect, which the specification announced wing terms:—"And moreover in such ay require that the position of all the ould be changed at the same time with surrounding fixed objects, by a motion to that of feathering or changing their I do produce such and the said change l-known means of construction."

This contains a distinct communication of the principle of giving different angles to the paddles, and subsequent invention must, therefore, be confined to the means for carrying out the principle into practice, or for producing the same effect. The method described by Buchanan consisted in making the float-boards turn on horizontal spin-dles, by means of cranks with arms or spokes connected to a collar revolving upon a hollow drum, fixed to the side of the vessel, so that the floats should enter and leave the water at right angles to the surface.

The object of this, and all subsequent inven-tions, is to make the floats enter and leave the water at an angle differing from the angle in the common paddle wheel, that is, at some angle dif-ferent from the radial angle; the avoiding the radial angle seems to have been the great object, and has been the subject of a great variety of patents. These moveable floats have not generally been successful in practice, and Galloway had a subsequent patent for improvements in paddle wheels, the invention in which consists in a di-vided float-board, the several parts of which are fixed and arranged according to an assigned law. This patent was litigated in *Galloway v. Bleaden*.

REGAN AND ANOTHER v. SEAWARD AND OTHERS.

Cor. Sir L. Shadwell, V. C., Trin. Vac. 1835.

In Chancery.

was a motion to dissolve an *ex parte* injunction obtained ain the defendants from infringing the preceding patent, had been assigned to the plaintiffs.

VICE CHANCELLOR.—The question in the case is simply, r the eccentric motion is produced by the adoption of the ombination of machinery by the defendants as the plain- entitled exclusively to use. Upon reading the specifi-it appears that a particular combination, insisted on, is ed under the items rods, bent stems, disc, and crank. If lloway had been asked at the time he gave this descrip- whether he meant the disc should revolve on a crank only, it should be made to revolve by any other suitable

Sir L. Shadwell, means, his reply might have been general; but as he has thought proper to specify a crank, the question to determine is, whether the eccentric axis with a collar in the defendants' contrivance, is the same as a crank in that of the plaintiffs'. The term crank is a relative term, and might have reference to some particular piece of machinery. The arrangement adopted by the defendants is a most important variation from the invention, for instead of weakening the action of the paddle wheel, that is preserved entire, unbroken, and unencumbered. That perpetual vibration, or destroying power, as it might be termed, on the outer part of the frame work that supports the wheel, is entirely avoided, and the vibration at the centre of the disc within the wheel is transferred from a part of the machinery least able to bear it to the side of the vessel, that is made strong for the purpose; and although it might be said the action of the rods on one side of the float-boards might distort them a little, that inconvenience might be more than counterbalanced by other advantages. The alteration is, therefore, not merely colourable, but *prima facie* a decided improvement by the introduction into a combination of three things of that which is not noticed at all in the specification. That is, however, the proper question for a jury to consider: the court had merely to decide what was to be done in the mean time. Now, it was possible a jury might find there had been no invasion of the patent. If that were so, and the injunction should be continued, where was the justice? There is no power in the court to make the plaintiffs pay the defendants damages, on the ground that the injunction has been continued too long. On the other hand, if the jury should declare there had been an infringement of the patent, the court had a power over the defendants, and the proper measure of damages would be the amount of the engines sold, and the profit derived therefrom. If the defendants are permitted to complete their present contract, or to enter into new ones, ample justice may be done to the plaintiffs, by taking an account of the profits the defendants may have realized. There could be no difficulty in this, because there were such things as books, papers, and witnesses. These machines could not be secretly made, and the notoriety attached to every thing connected with them is a sufficient security to the plaintiffs that they may obtain every necessary account. I shall, therefore, direct the injunction to be dissolved, and an action to be brought by the plaintiffs, to try the question of infringement. An account to be taken of the profits arising from the present and any contracts effected in the mean time, to be rendered hereafter to the parties declared entitled at law.

The question of the identity of two mechanical contrivances, is for a jury.

If there has been no infringement, the court has no power to make compensation for the injunction.

The following was the order in pursuance of the above judgment:—

This court doth order that the plaintiffs, or either of them, be at liberty to bring such action as they or he may be advised against the defendants, and their partner, James Durnford Capel; the defendants, and the said J. D. Capel by their counsel, undertaking to admit on the trial that all the right and interest of Elijah Galloway, in and under the letters patent, are vested in the plaintiffs or plaintiff in the action; and it is ordered, that the injunction granted in this cause be dissolved, the defendants, and the said J. D. Capel, by their counsel, undertaking to keep account of the cost and expense of the paddle wheels made to be made pursuant to the contract entered into by them with the Mediterranean and Levant Steam Packet Company, and of all moneys received and to be received in respect of such paddle wheels; and also an account of any other paddle wheels and machinery connected with or relating to paddle wheels to be made by the defendants and the said J. D. Capel, or any of them, either alone or jointly with any other person or persons, on a principle the same as or similar to that of the paddle wheels made and fitted by the said defendants and J. D. Capel in the Levant Steam vessel in the pleadings mentioned, before this matter comes on again in this court, and the cost and expense of all such paddle wheels and machinery so to be made, and of all moneys to be received in respect of the same; and to submit to such order as this court shall think fit to make in this case, respecting the paddle wheels made or to be made in performance of the said contract, and all such future paddle wheels and machinery connected with or relating to paddle wheels as aforesaid, or the other matters in question in this cause. And it is ordered, that the plaintiffs be at liberty to amend their bill making the said J. D. Capel a party thereto; the said J. D. Capel appearing by his counsel, and undertaking to be bound in the same way as if he were now a party to the said bill. And it is ordered, that the plaintiffs and their witnesses be at liberty to inspect at all seasonable times, giving reasonable notice, the paddle wheels or machinery connected with or relating to paddle wheels made or to be made pursuant to the said contract, or which before this matter comes on again in this court shall be made by the defendants and the said J. D. Capel, or any of them, either alone or jointly with any other person or persons as aforesaid; and when the same respectively shall be either finished or in progress of being made. And it is ordered, that the parties do produce at the trial of the action all books, papers, and writings, in their respective custody or power, relating to the matters in question. And any of the parties are to be at liberty to apply to this court as there shall be occasion. And this court doth reserve the consideration of costs till after the trial of the said action.

Order.

The plaintiff to be at liberty to bring an action.

The defendants to admit plaintiffs' title to the patent, and to keep an account.

The plaintiffs and their witnesses to have inspection.

Parties to produce at the trial all papers, &c.

MORGAN AND ANOTHER v. SEAWARD AND OTHERS.

Cor. Alderson, B., Trin. Vac. 1836.

Proceedings at law.

The declaration assigned as breaches—making and selling divers pieces of machinery in imitation of that part of the said invention for propelling vessels, and the using and putting in practice divers pieces of machinery made on the plan of the said improvement for propelling vessels, and in imitation of the last mentioned part of the said invention; and the imitating certain parts of, and making certain additions to and alterations in, that part of the said invention for propelling vessels.

Pleas.

The defendants pleaded; 1st. Not guilty. 2d. That the said E. Galloway did not by an instrument in writing particularly describe and ascertain the nature of the said invention. 3rd. That the said invention is not an improvement in steam engines. 4th. That the said invention is not an improvement in machinery for propelling vessels. 5th. That the said invention was not, at the time of granting the said letters patent, new; and that the said E. Galloway was not the true and first inventor thereof. 6th. That the said invention was and is of no use, benefit, or advantage, to the public whatsoever.

Objections.

On these pleas issue was joined, and the notice of objections (a) pointed, amongst others, to the following particulars:—That the specification does not show whether the patentee claims in respect of a new combination of things previously known, or the separate parts, rods, bent stem, disc, and crank. That no particular angle or dimensions, lengths, sizes, and proportions, are given, and no directions by which the required angle or any definite angle can be ascertained or produced. That there were various mechanical objections to the mode described. That all wheels made according to the specification have failed entirely; and those now made by plaintiff are substantially different from those described. That the said improvements in steam engines are applicable, if at all, to but one sort of steam engines; and that the description given is insufficient, setting forth various particulars.

Sir *F. Pollock*, Sir *W. Follett*, and *Butt*, were for the plaintiffs; Sir *J. Campbell*, A. G., *Alexander*, Q. C., and *Jervis*, for the defendants.

The summing up.

ALDERSON, B.: Gentlemen of the jury. The plaintiffs complain of the defendants for infringing their patent. The defendants make several defences. The first defence is, that they did

(a) By the statute 5 & 6 W. 4, c. 83, commonly called Lord Brougham's Act, which received the sanction of the legislature 10th Sept., 1835, in any action for infringing a patent, the

defendant is required, on pleading, to deliver a notice of the objections on which he means to rely at the trial. As to the requisites of such notice, see *Law and Practice*, IND. tit. Objections.

ge the patent. That is a question of fact with regard *Alderson, B.*
I do not think it is at all material to recapitulate the *to the jury.*
for I understand from an intimation you have thrown
you entertain no doubt about it, that is, that the one

ingement of the other. Upon that subject the ques- *The substitution*
I be simply, whether the defendants' machine was only *of mechanical*
different, that is, whether it differed merely in the *equivalents, is*
on of what are called mechanical equivalents for the *but a colour-*
xes which are resorted to by the patentee. I think, *able difference.*

are told what the invention of the plaintiffs really is,
the machine of the defendants really is, you will see
differences which Mr. Donkin and others point out
between the one machine and the other, are in truth
which do not affect the principle of the invention.

the two machines are alike in principle, one man was
inventor of the principle, and the other has adopted it,
gh he may have carried it into effect by substituting *The substance*
anical equivalent for another, still you are to look to *of the invention*
ence and not to the mere form, and if it is in substance *and principle of*
ement, you ought to find that it is so. If in principle *the machine,*
he same, but really different, then the defendants can- *and not the*
id to have infringed the patent. You will, however, *mere form, are*
are considering that subject, remember, that when the *to be looked to.*

Mr. Stevens's paddles was put into the hands of Mr.
e said at first sight that it was exactly like the plain-
so like was it as to induce him to say that it was pre-
same in principle, till I pointed out to him a material
in it, and then it appeared, that though there was a
of execution, there was a real difference in principle,
it was not similar to the plaintiffs' wheel, though at
it had the appearance of being similar. So you see
t to look always to the substance, and not to the form.
gentlemen, the next point is, whether the specification
r. E. Galloway enrolled at the time he obtained this
, or is not, a valid specification. That turns on a mat-
it is very proper should be submitted to your consi-

I will waive it for the present, for I would rather
f the more clear parts of the case first. Then the third
f defence is, that the invention of the steam engine is
mprovement in steam engines. And the fourth, that
tion of the paddle wheel is not an improvement in
g vessels. As to that, surely there can be no doubt
an improvement in propelling vessels, when you are
vidence, which has not been effectually contradicted on
side, that the effect of this improvement in the ar-
t of the paddles of these wheels has been to increase
of the steam boats fitted with them, by from one to
half knots an hour, and to make them more manage-

*Alderson, B.
to the jury.*

able. It is not for you to consider to what extent the thing is useful. If it is a useful invention, then it is a subject to be protected by patent; and if, on the other hand, it is of no use, then it is no subject to be protected by patent. The issue is, whether it is of any use at all, and I think you cannot entertain a doubt that the improvement in the paddle wheels is of use. You will probably think, upon the testimony you have heard in the course of this cause, that it is really a great improvement.

*The degree of
utility is not
material; it is
sufficient to sup-
port a patent if
the invention be
an improve-
ment.*

It is not material, however, that the improvement should be great. It is sufficient if it is an improvement at all. Upon that issue, therefore, I think you can hardly entertain a reasonable doubt, that it ought to be found for the plaintiff.

*The facts being
undisputed, the
question whe-
ther the inven-
tion is new is for
the court.*

Then, gentlemen, with respect to the fifth issue, it appears to me, that this invention is new, that is to say, the invention of a steam engine which was never thought of before, and the invention of machinery for propelling vessels which was never thought of before; and the only question upon that subject is, whether it is to be considered in point of law as a new invention. That depends on a mere question of law, arising out of the undisputed facts of the case appearing upon my notes. If in the result, upon those facts being stated to the judges of the Court of Exchequer, they shall appear to them as they appear to me, to be facts which are altogether beyond dispute, and upon which I ought to direct the jury to find a verdict for the defendants, the verdict will be entered for the defendants upon that issue. If I should be wrong in my opinion, the judges will set me right, that is, if they should be of opinion that the question was a proper one for your consideration. I cannot put it more favourably for the plaintiffs than by taking that course. Therefore, under my direction, you will find the fifth issue, for these reasons, for the defendants, subject to your finding being reversed if the court shall think fit.

Then the sixth issue is, that the invention mentioned in the declaration is of no use. Now, I apprehend, and as at present advised I should direct you in that way, that this issue cannot be found for the plaintiffs, unless you are satisfied that both the steam engine and the machinery for propelling vessels are of use. It is clear that the machinery for propelling vessels is of use; upon the subject of the steam engine, there is a contradiction in the evidence. The issue, therefore, upon the third, which states the invention not to be an improvement in steam engines, and the sixth, which states the invention to be of no use, are, in my judgment, the same; therefore, as you find the one you will find the other. The questions, therefore, for your consideration, or which, properly speaking, are matters now in doubt, are the questions upon the specification, and whether the steam engine is useful. All this matter, therefore, turns upon those two points.

I will now begin with the specification. It is the duty of a A. D. 1836.

person who takes out a patent to specify what his invention really is, and although it is the bounden duty of a jury to protect him in the fair exercise of his patent right, it is of great importance to the public, and by law it is absolutely necessary, that the patentee should state in his specification, not only the nature of his invention, but how that invention may be carried into effect. Unless he be required to do that, monopolies would be given for fourteen years to persons who would not on their part do what in justice and in law they ought to do, state fairly to the public what their invention is, in order that other persons may know what is the prohibited ground, and in order that the public may be made acquainted with the means by which the invention is to be carried into effect. That is the fair premium which the patentee pays for the monopoly he receives. The question is, whether Mr. Galloway has in the specification, described which is accompanied by a drawing which you ought to take part of the specification, described with sufficient clearness and distinctness the nature of his invention, and the mode by which it is to be carried into effect. He has described two inventions, and if either of those inventions is insufficiently specified, the patent fails; for if a person runs the hazard of putting two inventions into one patent, he cannot hold his patent, unless each can be supported as a separate patent. In order to support each, the invention must be useful, and must be described in the specification in such a manner as to lead people early to know what the invention is, and how it is to be carried into effect. That doctrine must be applied to each of the two inventions contained in this patent, that is, to the invention of the steam engine, and the invention of the machinery for propelling vessels.

The specification is to warn the public of what is prohibited, and to teach them the invention.

Two or more inventions being comprised in the same patent, each must be such as would support a patent.

To begin therefore with the steam engine (b).—Has Mr. Galloway sufficiently described it so as to enable any one to know what he has invented, and so as to enable a workman of competent skill to carry the invention into effect? Mr. Justice Giffard, in the case of the *King v. Arkwright*, lays down as the criterion, that a man to entitle himself to the benefit of a patent of monopoly must disclose his secret and specify his invention in such a way that others of the same trade, who are artists, may be taught to do the thing for which the patent is granted, by following the directions of the specification, without any new invention or addition of their own (c). That is reasonable and

(b) The learned judge having described generally the nature of this part of the invention, and in a manner in which, according to the specification, it was to be carried out in practice, proceeded as above.

(c) See *R. v. Arkwright*, ante 66, and note: and the judgment of the Court of Exchequer in the case of *Neilson v. Harford*.

*Alderson, B.
to the jury.*

The specification must be such as may be followed without invention or addition.

The ordinary means of knowledge common to the trade may be required.

If a competent engineer with ordinary knowledge could carry out the invention without solving a problem, the specification is sufficient.

The most advantageous mode must be stated in the specification.

proper, for people in trade ought to be told the manner in which the thing may be done in respect of which the patent is granted.—How? Not by themselves becoming inventors of a method of carrying it into effect, but by following the specification, without making a new invention, or making any addition to the specification. If the invention can only be carried into effect by persons setting themselves a problem to solve, then they who solve the problem become the inventors of the method of solving it, and he who leaves persons to carry out his invention by means of that application of their understanding, does not teach them in his specification that which in order to entitle him to maintain his patent he should teach them, the way of doing the thing, but sets them a problem, which being suggested to persons of skill, they may be able to solve. That is not the way in which a specification ought to be framed. It ought to be framed so as not to call on a person to have recourse to more than those ordinary means of knowledge (not invention) which a workman of competent skill in his art and trade may be presumed to have. You may call upon him to exercise all the actual existing knowledge common to the trade, but you cannot call upon him to exercise any thing more. You have no right to call upon him to tax his ingenuity or invention. Those are the criteria by which you ought to be governed, and you ought to decide this question according to those criteria. You are to apply those criteria to the case now under consideration, and you should apply them without prejudice, either one way or the other, for it is a fair observation to make, that both parties here stand, so far as this objection is concerned, on a footing of perfect equality. The public, on the one hand, have a right to expect and require that the specification shall be fair, honest, open, and sufficient; and on the other hand, the patentee should not be tripped up by captious objections which do not go to the merits of the specification.

Now, applying those criteria to the evidence in the cause, if you shall think that this invention has been so specified that any competent engineer, having the ordinary knowledge which competent engineers possess, could carry it into effect by the application of his skill, and the use of his previous knowledge, without any inventions on his part, and that he could do it in the manner described by the specification, and from the information disclosed in the specification, then the specification would be sufficient. If, on the other hand, you think that engineers of ordinary and competent skill would have to set themselves a problem to solve, and would have to solve that problem before they could do it, then the specification would be bad.

Further, if a patentee is acquainted with any particular mode by which his invention may be most conveniently carried

into effect, he ought to state it in his specification. That was A. D. 1836. laid down in a case before Lord Mansfield (*d*). There the question arose on a patent for steel trusses. It appeared that the patentee in some parts of his process used tallow to facilitate the invention for which he had obtained a patent, and in his specification he made no mention of the use of the tallow. The court held the specification to be bad, because, they said, you ought not to put people to find out that tallow is useful in carrying into effect the invention of steel trusses. You ought to tell the public so, if that is the best mode of doing it, for you are bound to make a *bond fide* full and candid disclosure. So again in the case of the malt (*e*). That was a patent for drying malt, and one of the objections taken, was that the patentee did not state in his specification the degree of heat to which the malt should be exposed. The argument there was this. They said, it appeared that the specification was not sufficient, inasmuch as it did not describe the extent of heat to which the malt should be exposed, for it only said, "the proper degree of heat and time of exposure will be easily learned by experience, the colour of the internal part of the prepared grain affording the best criterion." Surely there it would have been competent to the patentee to say, any person of ordinary skill in such a business would be able to judge what colour the malt ought to be, and that, by experiment, he would learn what degree of temperature was exhibited at the time when that proper degree of colour was obtained; therefore the plaintiff contended that there was enough stated in the specification to enable the public to carry the invention into effect, and that the patent ought to be supported, because skilful maltsters and skilful dryers of malt would easily know where to stop, and what degree of heat was requisite for the purpose. There is no doubt that when a man was told that a certain effect might be produced upon the malt by shaking it and subjecting it to a certain degree of heat, his mind would be set on float; he would be at work upon it to ascertain what that degree of heat should be, and he would probably find it out. But that is not enough. The specification of a patent must not merely suggest something that will set the mind of an ingenious man at work, but it must actually and plainly set forth what the invention is, and how it is to be carried into effect, so as to save a party the trouble of making experiments and trials. The court in that case said, that a specification that casts upon the public the expense and labour of experiments and trials, is undoubtedly bad. Here, in this

A specification merely suggesting something, so as to throw on the public the trouble of experiment, is bad.

(*d*) See *ante* 53.

(*e*) *B. v. Wheeler*, 2 B. & Ald. 349. There was another objection to this patent besides that which is here referred to, namely, that the title was incorrect, and did not support the specification; the

invention really being of a colouring matter to be obtained from malt, and not, as was suggested, a new and improved method of drying and preparing malt.

*Alderson, B.
to the jury.*

case, the defendants take that line of argument; they say that experiments and trials are necessary. If it be said that all these matters will be well or easily known to a person of competent skill (and to such only the patentee may be allowed to address himself) then the invention will not in reality have given any useful or valuable information to the public.

Now, let us apply the principle of this case to the present, and see whether or not the patentee here has given that full information by the specification and drawing, which, being addressed to persons of competent skill and knowledge, would enable them from that specification and drawing to carry the invention into effect. On that subject there is undoubtedly contradictory evidence, but you see a specification is addressed to all the world, and therefore all the world, at least those possessed of a competent skill, ought to be able to construct the machine by following that specification. It is not fair to you or to me, if we happen to be less inventive than our neighbours, that we should be prevented from constructing these machines, by reason of the specification not giving a clear exposition of the way in which it is to be done. In the case of the steam engine, there was put in on the part of the defendants a model, made, as it was said, according to the specification, which model would not work. The model was a copy of the drawing, and would not work, because one part happened to be a little too small, whereas, if it had been a little larger, it would have worked. Now a workman of ordinary skill when told to put two things together, so that they should move, would of course, by the ordinary knowledge and skill he possesses, make them of sufficient size to move. There he would have to bring to his assistance his knowledge that the size of the parts is material to the working of the machine. That is within the ordinary knowledge of every workman. He says, "I see this will not work because it is too small," and then he makes it a little larger, and finds it will work: what is required is, that the specification should be such as to enable a workman of ordinary skill to make the machine; with respect to that, therefore, I do not apprehend you will feel much difficulty, but with respect to the other there is a good deal more difficulty. I will not sum up the evidence upon the subject of the steam engine, but I will confine myself to the second invention, and see whether that can be carried into effect by means of the specification and the drawings, for it is to that question that the whole is directed. That invention is in two parts: first, he says, it is an improvement on paddle wheels for propelling vessels, whereby the float boards or paddles are made to enter and come out of the water at positions the best adapted, as far as experiments have determined the angle, for giving full effect to the power applied. He says, as far as experiments have deter-

A variation from the precise dimensions, represented so as to make two parts work together, is within the knowledge of any workman.

ained the angle. That clearly speaks of an invention for A. D. 1836. enabling a party to use paddle wheels for propelling vessels, which may be adjusted in such a way as that they may enter and come out of the water in angles the best adapted to give effect to the power of the engine, that is to say, at the angle a , that shall be the best position for giving full effect to the power of the engine, or at the angle b , if that shall hereafter by experiment be determined to be the proper angle. It appears from his statement here, that the proper angle was a matter of considerable doubt at that time; and therefore he does not promise to set down an individual angle as the best, which appears to have been one of the ideas of the defendant, as to the effect of the plaintiff's specification. But he says, I will give you a method of enabling the paddle wheels to enter and come out of the water, with the position the best adapted for giving full effect to the power of the engine. Then at the end of the specification, after having described the manner in which it is to be done, he says, that his claim is "for the mode hereinbefore described of giving the required angle to the paddles," (that is, any angle which may be required by the person ordering the machinery), "by means of the rods g, h, i, j , and k , the bent levers marked f , the disc a , and the crank b ." Now, I do not think that means he is to give you a machine, the angle of which may now be a , and now b , but that if you wish to have a machine, the paddles of which shall enter at angle a , which you tell him, and go out at angle b , which you tell him, he ought to be able to construct a machine which shall answer to your order. That I take to be what the inventor says he has enabled the public to do by means of his specification and plan. He then describes the invention. In fig. 4, you have the shape of the lever, and a particular angle is mentioned, but it is obvious that that is not an angle to which the parties are necessarily to be confined. Then he says, " g, h, i, j , and k , are connecting-rods attached at one of their ends by pins or bolts, r , to the bent levers, f , of the float boards, and the other ends of all these rods, excepting g , are attached to the disc, a , by pins or bolts, s , as shown in fig. 5." The only observation is, that he gives no dimensions; he fixes no points either for the centre of the eccentric, or for the crank to which the eccentric centre is attached; therefore, if those can only be ascertained by experiments subsequently to be made, then the specification is bad. The whole in some degree turns upon the length of the rods, and the position of the centre of the eccentric. The principle upon which these parties proceed, and upon which all the inventions in that respect proceed, is, that the wheel with its spokes, to which the floats are attached, turns round on an axis, and the floats are made to turn by means of an eccentric, and therefore the floats bend as the wheel revolves, and they bend

*Alderson, B.,
to the jury.*

in a particular manner according as the floats are disposed, and according to the position of the centre of the eccentric, by which they are regulated. They are regulated by means of a fixed bar, which is attached to the centre of the eccentric disc. The others are moveable boards, which are attached apparently to the circumference of that same disc, and the whole is made to revolve by the fixed bar being attached to a fixed point of the wheel itself, and therefore the revolution of the wheel forcing that fixed point round, turns round the eccentric disc, and with it changes continually the position of all those rods which are affixed to the circumference of that disc, and according to their being on one or the other side of that disc, they operate on the respective float boards to which they are attached. All that turns upon the position of the eccentric axis, and the length of the respective rods operating through the medium of this centre upon the respective float boards; now the question is, whether in the absence of any statement as to the dimensions of these different parts, and of any directions for finding the centre of the eccentric, you think the specification is sufficient or not, and that must be determined by the evidence which has been given by the witnesses on the one side and on the other.

Now, gentlemen, you cannot treat the actual picture which is given in the drawing as any guide to the particular angle, or to the particular position of the eccentric; and for this simple reason. If that were the criterion, then the substance of the invention would be the particular angle contained in the particular drawing, and, in order to show an infringement, they ought to have shown that Mr. Seaward's wheel entered the water at the same angle as the angle described by the drawing, and therefore, in that case, you would be bound to find the first issue for the defendant, namely, that there was no infringement. If, however, you treat the picture or the drawing as only an illustration of the invention, and not as confining the invention to the particular angle there described, then you ought to find in the specification some directions, which should enable you to construct the machine in a new form, or you ought to be satisfied that without any instructions a workman of ordinary and competent skill and knowledge would be able to do it. Now I do not think that Mr. Carpmael gives any evidence to that point; but Mr. Brunel says, "I have read the specification, and I think I could construct by it a machine at any required angle without difficulty." You see he says, "I think I could construct by it a machine at any required angle without difficulty:" but whether Mr. Brunel could do it or not, is not the point. I dare say Mr. Brunel, the inventor of the block machinery, could invent any thing of this sort the moment it was suggested to him, but that is not the criterion. The question is, whether a man of ordinary knowledge and skill, bringing that ordinary

knowledge and skill to bear upon the subject, would be able to do it. A. D. 1836.

Then the evidence of Mr. Park is much more material. He says, "I could without any difficulty make the machine so that the paddles could enter the water at any angle." He prepared the models which have been used. Now the criterion is, whether at the time when the specification was introduced to the world, Mr. Park would have been able to construct the machine with his ordinary knowledge and skill, without the peculiar knowledge he has since obtained upon the subject from being employed to make the models for Mr. Morgan, because it would not be at all fair to allow your verdict to be influenced by knowledge so acquired; but he says, with his ordinary knowledge and skill, he could without difficulty construct a wheel, so that the paddles should enter the water at any angle. He says, if the diameter of the wheel is given, which it is fair should be given, and the immersion of the float, and that is also fair to be given, he could do it. Those are reasonable data for him to require, and if with his ordinary skill and knowledge, and without that peculiar knowledge which he has obtained in consequence of his connexion with the plaintiffs and with this cause he could do it, that would be evidence on which you would be entitled to place reliance. Then he tells you how he could do it: now, I do think it would have been a vast deal better if the specification had given us the same information, for that is what a specification ought to do (f).

Information acquired from any other source than the specification must be excluded.

Reasonable data must be given.

The specification ought to contain a full description of the way in which it is to be done. The question really is, whether, upon the whole evidence, you are of opinion that the specification does fairly and fully and properly give to the public that information which the public are entitled to receive, that is to say, whether it tells them, without having recourse to experiments, how to do it, or whether it even tells them what is the course their experiments ought to take—to what point their examinations and experiments should be directed. He says, he could do it with the skill he possesses; and he has described the manner in which he proposes to do it. He says, "I have

(f) The learned judge read over and commented on the evidence of the witness at great length. The witness stated, "That he took the rods of unequal lengths, that he wanted a fourth point for the centre of a circle, the circumference of which should pass through the three points already obtained (viz. the ends of the three rods), that centre of the eccentric which was to govern the whole. I do this in the ordinary way; any geometrician would know how to do it; I proportion the ends to the necessary lengths." The specification says nothing as to the lengths of the rods, or about a fourth point, or centre of the eccentric, or as to the circumstance regulating the lengths, or as to the size of the disc, to which, at some part

or other, the rods were to be affixed. Upon these several points the learned judge remarked, that if stems and rods are spoken of generally, the natural inference was that they were to be of equal lengths; it was much to be regretted that the specification should give no directions as to these points for the assistance of those who were to be guided by it hereafter. That it would be a question for the jury, whether such a specification was a fair and reasonable statement of the manner of doing it, since he who directs the public ought to have stated these various particulars; otherwise, how was it to be known but by experiments, of what lengths the rods were to be, or at what angles they were to be fixed from the disc and from each other?

*Alderson, B.,
to the jury.*

seen this drawing;" then he produces a drawing, and he says, "this represents my plan of drawing it. An engineer of competent skill would have no difficulty in doing it." His doing it himself I do not consider so material, but he says an engineer of competent skill would have no difficulty in doing it. That is material.

All extreme or
exaggerated
cases should be
discarded.

Then when that drawing was shown, some of the gentlemen appearing on behalf of the defendants drew an angle upon it as the angle of entering, and asked him how that could be done. No doubt his principle would enable him to work out any angle, but there are a set of angles which would cause the centre of the eccentric to go beyond the wheel itself, which, therefore, it is impossible to carry into effect, but those angles are such as would not be required in ordinary practice by any persons. You should discard on both sides all exaggerated cases, and look to the substance of the thing. If you think in substance that the information really communicated would be enough in all ordinary cases, or in such cases as are likely to occur, then that would do; but if it is not a clear statement, and if it does not give such information as will render it unnecessary for parties to make experiments, then the specification would in that respect be insufficient. It is most important that patentees should be taught that they are bound to set out fully and fairly what their invention is, for, suppose a person were to make an invention, and get a right of making it for fourteen years, to the exclusion of all other persons, it would be a very great hardship upon the public if he were to be allowed to state his specification in such a way, that at the expiration of the term of his patent, he might laugh at the public, and say, I have had the benefit of my patent for fourteen years, but you, the public, shall not now carry my invention into effect, for I have not shown you how it is to be done. I have got my secret, and I will keep it.

Mr. George Cottam says, "it is a common problem to find a centre from three given points, and a person of ordinary engineering skill ought to be able to do that." The question is, whether it ought not to be suggested to him by the specification, that that is the problem to be solved. Then Mr. Curtis says, "I have made wheels on this plan." You see he made the two wheels which were sent to the Venice and Trieste Company, but those were made under the direction of Mr. Galloway, the inventor. Now, it somewhat detracts from the weight due to his testimony, not as to his respectability, but as to the value of his evidence to you, that he had received the verbal instructions of Mr. Galloway. It may be, that he could do it because of his practice under Mr. Galloway; and it must be recollected that people in other places would not have that advantage. He says, he would not have any difficulty in doing it; and he says, "I should not consider my foreman a competent workman

unless he were able to make the wheel from the specification A. D. 1836. and drawings." He says, "I could alter the angle by altering the cranks." The question is not, whether he could do that, but whether he could alter the angle to a particular angle by altering the cranks in a particular way, that is, whether, having the angle given to him, he could make the alteration that was desired. Then Mr. Joseph Clement says, he is a mechanic, and did the work of Mr. Babbage's calculating machine; that he has seen the model of the steam engine and paddle wheels. He speaks of the similarity of the plaintiffs' and defendants' wheels, and says, "I could make the machine from the specification and drawing. The float ought to enter the water at an angle tangent to the epicycloid." That is only his opinion as to the most convenient angle. The real motion of the boat is this. The wheel keeps turning round and round on its own axis; during that time the boat has a progressive motion. The wheel, therefore, has a double motion; therefore every point of the wheel does not move in a circle but in a cycloid, that being the curve described by the rolling of a circle on a flat surface. He says, it should enter at a tangent, that is, that the angle should be such that it will enter the water perpendicularly, in consequence of the motion of the boat, and of the point of the wheel. He says, in like manner it ought to go up. That is probably a very correct view of the case. He says, "I should have no difficulty in constructing a float to enter at any angle ordinarily required. A man, properly instructed in mechanics, would have no difficulty in doing it." That is his evidence, which it is material for you to consider; and he is a mechanic himself.

Then Henry Mornay, a young gentleman in Mr. Morgan's employment, where he has been apparently studying the construction of engines, speaks of a circumstance which does appear to me to be material. He says, Mr. Morgan in practice makes his rods of different lengths. He must necessarily do so, in order that the floats may follow at the same angle as that at which the driving float enters the water. The problem which Mr. Park solved is a problem applying to three floats only; but it appears that the other floats will not follow in the same order, unless some adjustment of the rods is made. Now, suppose it was to be desired that the floats should all enter the water at the given or required angle, if one should go in at one angle, and one at another, the operation of the machine would not be uniform; and the specification means that the party constructing a wheel, should be able to make a wheel the floats of which shall all enter at the same angle, and all go out at the same angle. Now in order in practice to carry that into effect, if there are more than three floats, something more than Mr. Park's problem would be required; and Mr. Mornay says actually, that

*Alderson, B.,
to the jury.*

Mr. Morgan in practice makes his rods of different lengths, and he must necessarily do that in order that the floats may follow at the same angle as the driving float enters the water. If so, he should have said in his specification, "I make my rods of different lengths, in order that the rest of my floats may enter at the same angle; and the way to do that is so and so." Or he might have said, "it may be determined so and so." But the specification is totally silent on the subject; therefore, a person reading the specification, would never dream that the other floats must be governed by rods of unequal length; and least of all could he ascertain what their lengths should be, until he had made experiments. Therefore it is contended that the specification does not state as it should have stated, the proper manner of doing it. He says, if they are made of equal length, though the governing rod would be vertical at the time of entering, and three would be so when they arrived at the same spot, by reason of the operation Mr. Park suggests, yet the fourth would not come vertical at the proper point, nor would the fifth, sixth, or seventh. Then they would not accomplish that advantage which professes to be acquired. The patentee ought to state in his specification the precise way of doing it. If it cannot completely be done by following the specification, then a person will not infringe the patent by doing it. If this were an infringement, it would be an infringement to do that perfectly which, according to the specification, requires something else to be done to make it perfect. If that be correct, you would prevent a man from having a perfect engine. He says, practically speaking the difference in the length of the rods would not be very material, the difference being small. But the whole question is small, therefore it ought to have been specified; and if it could not be ascertained fully, it should have been so stated. Now this is the part to which I was referring, when in the preliminary observations I addressed to you I cited the case before Lord Mansfield, on the subject of the introduction of tallow to enable the machine to work more smoothly. There it was held that the use of the tallow ought to have been stated in the specification. This small adjustment of these different lengths may have been made for the purpose of making the machine work more smoothly; if so, it is just as much necessary that it should be so stated in the specification, as it was that the tallow should be mentioned. The true criterion is this,—has the specification substantially complied with that which the public has a right to require? Has the patentee communicated to the public the manner of carrying his invention into effect? If he has, and if he has given to the public all the knowledge he had himself, he has done that which he ought to have done, and which the public has a right to require from him.

Any circumstance conducive to the advantageous operation must be stated.

I will now read the defendant's evidence, and you will see A. D. 1836. whether upon the whole there is evidence before you on which you think you can come to any reasonable conclusion.

Now first of all, Mr. Donkin, a man of considerable experience, is called; but before I go to his evidence, I will remark, that I have always found that there is a great deal of contradiction in questions of this description; but that is not to be attributed in the least degree to corruption, or to any intention to misrepresent or mislead—people's opinions vary. They come to state to you not matters of fact, but matters of opinion, and they tell you conscientiously what their opinion really is. You may have a great difference of opinion among scientific men on a question relating to science; but though by their evidence they contradict one another, they are not influenced by a corrupt desire to misrepresent (g).

Defendant's evidence.

Now Mr. Donkin says, "On first reading the specification, I thought there was a defect in its not explaining the mode of obtaining the required angle. In my judgment, a workman of ordinary skill would not be able to find out any mode of obtaining the required angle." He says, a geometrician might discover the mode of adjusting the three angles, the angle of immersion, the vertical angle, and the angle of emersion; but in order to discover the mode by which all the paddles may enter at the same angle, another discovery must be made. He says, it requires to be ascertained by experiment or diagram, whether the adjustment is to be made by altering the bent stem, or by varying the length of the rods, and you have nothing but the drawing to guide you in that respect. He says, he must first ascertain whether he is to produce the effect by altering the centre, or by altering the bent stem, or varying the lengths of the moveable rods. What are those but experiments to ascertain how the thing should be done, all of which he ought to have been saved by its being stated in the specification how to do it. However, that is his evidence; he says, the angle must depend on the dimensions of the several parts of the wheel. Then he goes on to the other parts of the case, and on his cross-examination he says, "I think a competent workman would be able to do it if he made the previous discovery; but he would not do it unless

(g) The learned judge here adverted to a case alluded to by Sir F. Pollock, in which the question was as to the point at which oil would boil (probably the celebrated case of *Severn v. Olive*), and marked that both parties were of the same mind when they made their experiments upon the same data, but they had not made the same experiments. They had not taken into consideration, he believed, the difference between the effect of heat applied to oil in the course of a long time, and the effect upon oil when heat was applied only for a short time. Time was left out of their consideration,

and that appears to explain all the difference that existed between them. The ultimate result was, that there was not any difficulty in determining the point; but the court decided that case upon this ground: they said, "ten men are of opinion there was no danger of the house being burned by this operation, and ten are of opinion that there was danger;" was it not fair that the insurers should have known of it, that they might have determined the question for themselves? That was the point on which the court decided, rejecting the evidence on both sides.

*Alderson, B.,
to the jury.*

a careful investigation was gone into." He says, "few ordinary workmen would be able to get the desired angle; I think my foreman would—I think a person moderately acquainted with geometry might do it, but he must find it out—he could sit down and determine it. If he possessed proper information, he ought to be able to do it. An engineer properly skilled in geometry, ought to be able to find out how the angle was to be determined. If he sat down and referred to his general knowledge, he would find it out." Now the criterion is not whether he could find it out or not, but whether he could do it by means of the information contained in this specification and drawing, calling in aid his general knowledge, and those mechanical means with which he may reasonably be expected to be familiar; but if he is to sit down and consider how it is to be done, that is not sufficient. You will judge whether or not the evidence of this witness satisfies you on these points, and whether it makes out the proposition for which the defendants contend.

Then Mr. Brunton says, "I think a workman of competent skill could not construct a machine so as to have the floats enter at any particular angle, and leave at a particular angle." He says, if the required angle was different from the drawing, it would be an exceedingly difficult thing, and he is not prepared to say how he could do it. Then Mr. Hawkins says, "I do not think a workman of ordinary skill could, from the plan and specification, make a wheel that should enter and quit the water at a different angle from that given in the drawing, unless he possessed considerable ingenuity for inventing the method of doing it."

Then Mr. Peter Barlow says, "There are not, I think, sufficient data to adjust the angle." He says, if the length of the stems was given, the difficulty would be very great, but it would have been a guide, and it ought to have been explained. That appears to me to be a very good common sense observation. Then Mr. John Donkin says, "I think an ordinary workman would find considerable difficulty in altering a paddle wheel to suit a particular angle, and I doubt whether he could do it." On his cross-examination, he says, "it requires more than a common knowledge of geometry; I think a man moderately acquainted with geometry might do it, but he would have to make experiments, and his first experiments would fail. A skilful engineer would have less difficulty in it, but he ought to be able to find it out." Then Mr. Bramah says, "I think I could discover how to do it." He has been an engineer many years, and he says, "I think I could discover it, but I do not know at present how to do it. Yesterday I attended to the evidence, and this morning I tried to find out how it was to be done, but I could not." Supposing Mr. Bramah had to make a machine of this kind, is he to sit down and invent a mode of doing it, or ought he not to have such information afforded as would enable him to do it at once

by means of the specification? Then Mr. Francis Bramah says, A. D. 1836. 'I have examined the specification: I could not make a machine from the specification, the floats of which should enter and leave the water at any required angle. Till I came into court yesterday, I presumed that the angle given in the drawing was the best angle, that is, that the specification had not only stated how to do it, but had described the best angle.' If so, it would be a specification only for that particular angle. He says, "I can go as far as I was told yesterday, but no farther."

Now, gentlemen, I have gone through the evidence on both sides, on this point, and the question upon this part of the case resolves itself into this: Do the witnesses on the plaintiffs' side satisfy you that the patentee has, in his specification, given to the public the means of making a machine which shall enter and leave the water at any angle that may be ordered; that is, if a man ordered a machine at an angle likely to be required for entering and going out, and to be vertical at the bottom, could an ordinary workman with competent skill execute that order by following the directions given in this specification? If you think he could, then the specification would be sufficient. If, on the other hand, you think he would not be able to execute the order unless he sat down and taxed his invention to find out a method of doing that which has not been sufficiently described in the specification, then the specification would be bad. If you think the specification good, then you ought to find for the plaintiffs upon that issue; if you think the specification bad, then you ought to find for the defendants.

With respect to the steam engine, the question will be, whether the machine is of use. On that subject the evidence on one side is, that the steam engine is useful in various ways. Mr. Brul does not state it to be of very great use, but the other witnesses speak of its packing in a small compass, and consuming less fuel, and they say that it is in some respects more smooth and even in its movement. The witnesses for the defendants say that they have examined it, and do not think it of any use. The fact on which the defendants rely in addition is, that though this invention took place in the year 1829, no engines were constructed upon this principle, except one of two or three horse power, which was employed in the plaintiffs' own manufactory, and which, according to their witnesses, was useful and worked well. There was another of about six or eight horse power, worked by Mr. Morgan, and afterwards sold, but which undoubtedly was not used by the persons to whom it was sold, or it had been we should have had some evidence of it. It was no doubt only used while it was in Mr. Morgan's factory. Then there is evidence of a third, which was put on board a steamer, which appears not to have been much used, for one of the pistons broke, and therefore the engine failed. That circumstance

The specification is sufficient, if a workman by following the directions could execute an order.

An invention not getting into general use, a presumption against its utility.

*Alderson, B.,
to the jury.*

would not show the engine to be of no use; but the circumstance of its not being supplied, and not getting into general use, is a circumstance for you to take into your consideration.

*It is sufficient if
an invention be
new, and of any
use.*

The first question in this case will be, whether you think the steam engine was a useful invention. If it was of any use. [*Jervis*: Whether it was an improvement on former steam engines, my lord.] I think not. I think if it was of a different construction from any other steam engine, and of any use to the public, then that is sufficient. If you, gentlemen, should be satisfied that the steam engine is of no use, you ought to find your verdict on that issue for the defendants, and then, though you may be of opinion that the paddle wheels are useful, still if persons will be so foolish as to put two inventions into one patent, one of which is good and the other bad, they lose the benefit of their patent till the Attorney General allows them to strike out that part which is invalid, and gives them the protection of the patent for the valid invention. But that applies to the future, and not to the past.

Gentlemen, these are the facts of the case. It is for you to consider, first, whether the specification has fairly and fully disclosed the nature of the invention, and the mode of carrying it into effect. If you think it has, you will find that issue for the plaintiffs; if you think not, your verdict ought to be for the defendants.

Then the second question will be, whether you think the steam engine is a useful invention. If you think it is a useful invention, you will find for the plaintiffs; if not, for the defendants. [*A Juror*: Suppose it is worse than the former, my lord.] Then it would be of no use. If it could be used where other steam engines would not answer, though it would not be likely to come into general use, it would be less useful, but still it would be of some use.

Verdict.

Verdict for the plaintiffs, on the issues on the first, second and fourth pleas; and for the defendants, on the issues on the third, fifth and sixth pleas. Leave to move to enter the verdict for the plaintiffs on the fifth plea.

*In the Exchequer.
Mich. T. 1836.
Plaintiffs' rule.*

In the ensuing term the plaintiffs obtained a rule, calling on the defendants to show cause, First, why judgment should not be entered for the plaintiffs, *non obstante veredicto*, on the third issue; Secondly, why the verdict for the defendants on the fifth issue, should not be set aside, and a verdict entered for the plaintiffs (c); Thirdly, why the finding of the jury on the sixth

(c) At the trial, the learned judge directed a verdict for the defendants on this issue. The following was the evidence:—

In the month of February, 1829, one Curtis, a

machine maker at Bermondsey, began to make for Morgan, the plaintiff, in his (Curtis's) manufactory, two pair of paddle wheels on the principle for which the patent was afterwards taken out, receiving

issue should not be amended, and judgment entered for the plaintiffs; or, Fourthly, why a new trial should not be had, and that in the mean time proceedings be stayed.

The defendants obtained a rule to show cause why, if the court should determine in favour of the plaintiffs on the above rule, a new trial should not be had, on the ground that the verdict for the plaintiff on the second issue is against evidence, and that in the mean time proceedings be stayed.

Defendants' rule.

MORGAN AND ANOTHER v. SEAWARD AND OTHERS.

In the Exchequer. Hil. T., 1837.

[2 M. & W. 544; Mur & H. 55; 1 Jur. 527.]

Sir J. Campbell, A. G., D. Pollock, Alexander, and Jervis, showed cause against plaintiffs' rule.

If any one of several inventions recited in a patent as improvements, be not an improvement, the patent is wholly void. The making of two pair of paddle wheels under injunctions of secrecy, and selling them for user abroad, will not vitiate subsequent patent.

The question on the issue on the third plea, which, if material, disposes of the others, is whether the inutility of an invention, or a material part of an invention claimed as an improvement, vitiates the letters patent. The statute 21 Jac. 1, c. 3, is a restraining statute, and Lord Coke, in his commentary upon it, states (a) that at common law there must be, in order to support a monopoly, "*urgens necessitas et evidens utilitas*," and the statute does not invest the crown with a larger power than it possessed at common law (b). The grant itself also recites that the party is the inventor of an improvement; the plea denies that it is an improvement, so far as the plaintiff claims it as to steam engines; the jury have found that it is not so; the patent is therefore void as to this part, inasmuch as the crown has been deceived in its grant, having made it on the faith of the suggestion that the machine was an improvement in steam engines. And if void for that part, it is void altogether: the claim is for one entire invention, and if a party takes out a patent for several subjects, he perils the whole on the validity of each (c). A patent for a useless manufacture is "hurtful" and "inconvenient"

his instructions from time to time from Galloway. One pair was completed in April, and the other pair in June, 1829, and Curtis was then paid for them by Morgan. Curtis's ordinary workmen were employed upon them, but he received directions from Galloway that no other person should see them, as he was about to take out a patent. One Williams, a working mechanic, came on one occasion into the manufactory when the men were at work upon the wheels, and saw them; but a complaint being made on the subject, he was never again admitted, nor were they seen, so far as appeared in evidence, by any other stranger. When the wheels were finished, they were taken to pieces, packed up, and shipped for Trieste, where

they arrived in July, and were received by an agent of the plaintiff Morgan; thence they were embarked for Venice, where they were put together, and in September they were started from Venice to Trieste, in boats belonging to the Venice and Trieste Steam Company, of which Morgan was the manager and a principal owner. The instructions for entering the caveat for the patent were given in the beginning of March, and it was taken out on the 2d of July.

(a) See ante 29-31, n. p.

(b) As to the effect of the statute upon the common law, see ante 8, n.

(c) Citing *Branton v. Hawkes*, 4 B. & Ald. 541.

*In the Fische-
quer. Argument
on plaintiffs'
rule.*

within the meaning of the statute, since it precludes all the rest of the public from enjoying the benefit of real improvements in the subject-matter of the patent during the term of the exclusive grant (*d*).

The plaintiffs will place great reliance on the case of *Lewis v. Marling* (*e*). There the patentee of an improved machine for shearing cloths, claimed as his invention, the application of a proper substance to brush the surface of the cloth to be shorn: the brush, however, turned out to be useless, but it was held, that this did not vitiate the patent, because the specification had not described it as an essential part of the machine. [*Alderson, B.*: There may be a great difference between the case of a complicated machine, one part of which may be useless, and a case where one of the distinct portions of an invention is useless.] *Lewis v. Marling* is, on that ground, clearly distinguishable from the present case. But besides, the patentee has here explicitly claimed this as an improvement in steam engines. That amounts to the same as if, in describing a complicated machine, he had claimed any particular part of it as an essential part. On this ground, therefore, it is submitted, that the patent is void altogether.

The second question is as to the novelty of the invention. The rule of law is, that if, after a party has completed his invention, and before taking out his patent, he thinks fit to put it into use or practice, that will avoid his exclusive right. The nature of the use must have been such as would invalidate a patent for the same invention, if taken out by another person (*f*). Here the facts show that there was such a use and exercise of the invention as amounted to a publication. It is said, that all that was done by Galloway was for the purpose of experiment. It rather appears, that it was by way of venture. The wheels were sent to Trieste by Morgan, not as the patentee, but as the agent of the company, in order that the company might purchase them, not merely that they might try the capability of the invention; and the patent was taken out within a month or two afterwards, before any answer was returned from Trieste. The new manufacture intended by the

(*d*) The argument on behalf of the defendants on this part of the case was directed to show that in all the cases the utility of the invention was recognised as essential to support the patent, and was a question to be left to the jury.

In *Edgebury v. Stephens*, it is said, "the act was intended to encourage new devices, useful to the kingdom." *Ante*, 35-6.

In *Boulton & Watt v. Bull, Eyre, C. J.*, says, "the invention professes to lessen the consumption of steam; and to make the patent good, the method must be capable of lessening the consumption to such an extent as to make the invention useful." 2 H. Bl. 498; Dav. Pat. C. 216.

In *Huddart v. Grimshaw*, Lord Ellenborough, C. J., says, "if the combination be productive of a new end, and beneficial to the public, it is that species of invention which, protected by the king's patent, ought to continue to the person the sole right of vending," &c. *Ante*, 86.

It has been a constant practice to leave the question of utility to the jury. See per Lord Tenterden, C. J., in *Lewis v. Davis*, 3 Car. & P. 502; also *Haworth v. Hardcastle*, 1 Bing. N. C. 182.

(*e*) 10 B. & C. 22.

(*f*) See *Tennant's case*, *ante* 125; and *Wood v. Zimmer*, *ante* 44, n.

is something which at the time when the patent is taken has not been known to others than the patentee: the reason is not confined to cases where it has been previously used, or even used in the ordinary sense of the word. The public knowledge and the use thereby acquired is a publication sufficient to avoid the patent. If these wheels, when common, had been publicly exhibited, could the patent have been maintained? By such exhibition the invention would have ceased to be new, although it had never been brought into actual use. *In the Exchequer. Argument on plaintiffs' rule.*

F. Pollock, *Sir W. Follett*, and *Butt*, in support of the rule. The plaintiffs are entitled to a verdict on the fifth issue. On the evidence given at the trial, there was nothing to go to show such a want of novelty as avoided the patent, either by force of the statute, or by the terms of the grant. The notion of novelty in an invention was a restriction first introduced by the statute of James. [*Parke, B.*: That appears reasonable; Lord Coke seems to speak of it as one of those species of a monopoly which existed before the statute (*g*).] I submitted that he is only commenting upon the several restrictions imposed by the statute itself. Then all which the law requires in this respect, is that the grant shall be to the true and true inventors of such manufactures which others, at the time of the making of the grant, did not use. And all that patentees patent themselves require is, that the invention shall not be known as to the public use and exercise thereof in England, or colonies. Now, it does not appear from the evidence, that there was any use whatever of this invention, in the ordinary sense of the word, in England. The machine itself was never made; and if the invention be considered to be not the machine, but the method of constructing it, that was brought into use only on one specific occasion, and that only by way of experiment, with the view of using the machine itself out of the kingdom. It has been said on the other side, that it could not have been made by way of experiment, because the shipment of the machines for abroad was only a month or two before the date of the patent. But the period of six months, which is given after the date of the patent for enrolling the specification, is given for the purpose that the patentee, having secured his right, may have an interval in which to perfect his experiments, before he is obliged to describe or ascertain by his specification the precise nature and details of his invention. Nay, he is even bound, during that interval he make any further discovery, to communicate it to the public (*h*). Suppose the machines had been

See the statute, and Lord Coke's comment upon it, *ante* 31, n. p.; see also the early law, *ante* 9-27. The statute appears to have added no new condition, excepting only in re-

spect of the grantees being the true and first inventor. *Ante*, 8.

(*h*) See *Crossley v. Beverlay*, *ante* 116.

In the Exchequer. Argument on plaintiffs' rule.

made by Galloway himself, and then sold to the company, would that have been a publication? Clearly not. Then he has an equal right to employ another to make them: he does not sell to that other the privilege of making them for himself, but merely employs him to construct them, paying him the price of the materials and labour. Moreover, he is employed with a knowledge that a patent is about to be taken out, and therefore that the method of construction is a matter to be kept secret, and accordingly he is bound by a pledge of secrecy. It is in all respects the same as if the machine had been made by Galloway himself in his own workshop, in a case where he could have made it by his own skill and labour. The inventor does not, by license or otherwise, permit others than himself—strangers, to use either the machine, or the method of construction, in England; he does not sell or publish in any way the method of construction; and he sells the machine but to be used abroad. The public have, before the date of the patent, no means whatever of discovering the invention. As to Galloway's publication to the plaintiff, that was under the intended contract of assignment, and was clearly no publication to the world. The cases referred to on the other side are all distinguishable. In *Wood v. Zimmer*, the article for which the patent was granted had been publicly vended. In *Tennant's* case, it had been used for several years by another manufacturer, the patentee was therefore certainly not the first and true inventor. The same observation applies to the case of *Arkwright's* patent. *Lewis v. Marling* was a stronger case than the present. [*Alderson, B.*: It is certainly a most important question, what are the limits of what a man may do without its being a publication; and a question on which much remains to be discovered; the law is in a very confused state. In the case of *Lewis v. Marling*, I should certainly have entertained very considerable doubts. If the question is to be put altogether on the ground of the public use of the invention, how did Dr. Brewster lose the benefit of his invention of the kaleidoscope, because it had been previously published in a book, if it had not been used, though made known to all the world before? If Dr. Hall had published his discoveries in a book, I apprehend that would have put an end to *Dollond's* patent. Much obscurity has been introduced into this question by the use of loose expressions and *dicta* (i).] The knowledge, and means of knowledge of the public, amount to the same thing: in this case, the public had neither.

Secondly; it may be admitted, that if a patent be taken out for a machine, or thing that is to perform a particular operation, and it does not perform that, and is therefore useless with re-

(i) These observations of the learned judge present very prominently the difficulties which exist in respect of the construction to be put on

the words of the statute and letters patent, or rather on the meaning of the term publication. See *ante* 44, n.; and 86, n. c.

ference to the specific purpose for which the patent is granted, *In the Exchequer. Argument on plaintiffs' rule.* that will avoid the grant. But here it is not pretended that the plaintiffs' steam engine is absolutely useless, or even worse to use than one of a different construction in the same circumstances; and there is a wide difference between the case of an article's not being useful, because there is already another in the market which will as well answer the purpose, and may be cheaper, and that of an article which is useless, because it professes to effect a particular purpose, and does not effect it. The cases relied on by the other side will be found to apply to the latter state of circumstances. It is said, that this being a patent for several inventions, by upholding one of them when the other is useless, the patentee obtains a monopoly of the whole, and so deprives the public of the benefit of applying the former to some other useful combination. But the answer is that given by the court in *Lewis v. Marling*, that the statute imposes no such condition as that the invention shall be in all parts useful. "The condition is, that the thing shall be new, not that it shall be useful; and although the question of its utility has been sometimes left to a jury, I think the condition imposed by the statute has been complied with, when it has been proved to be new" (k). If the grant be according to the terms of the act of parliament, and the grantee complies with any farther condition which the crown may think fit to annex to the grant, that is all that is necessary. And if this be true, of a single invention composed of several parts, as was the case of *Lewis v. Marling*, *a fortiori* it is true of several distinct improvements comprised in one patent, where only one is found not to be useful. The restraint in the statute as to general inconvenience cannot apply to such a case; and the commentary of Lord Coke on that clause is, at the present day, absolutely absurd. The only question is on what terms the grant is made; the court cannot superadd any condition; and good reason may be assigned why the statute should impose no condition of utility. Whether a thing be new or not, is a pure question of fact; but whether it be useful or not, with reference to previously existing things of the same kind, is a question of opinion, and a question admitting of all possible shades and degrees of difference. Here, for instance, it may be that this engine consumes so much more fuel than others of a different construction, that it is not therefore worth while to use it, although it may be abstractedly a certain improvement in the construction of steam engines. [Alderson, B.: The Attorney General puts it thus: if the invention be useless, its being a monopoly makes it mischievous, inasmuch as it prevents other persons from adding to it, so as to make a useful combination.] It might be for a jury

(k) See *per Parke, J.*, in *Lewis v. Marling*, 10 B. & C. 28. See post 192, n. l.

In the Exchequer. Argument on plaintiffs' rule.

to say whether, in such a case, the addition did not make it the invention of the supposed pirate. When a party obtains a patent, the presumption is that the crown has looked at the invention, and found it a fit subject for a patent: if by matter *ex post facto* it appears that it stands in the way of a greater improvement, that may be the ground of repeal; but usefulness is not made a condition of the grant, either by the statute or in the letters patent themselves (l). The public are not bound to adopt that part of the invention which is useless; but they are not entitled to reject that part, and at the same time to use the other as they please. But, at all events, the whole subject of the patent ought to be shown to be useless, in order to avoid the grant. The infringer is bound to show that the inventor has done the public no good. On principle, therefore, this point would appear to be against the defendants. But it is said, the authorities, at least those antecedent to *Lewis v. Marling*, are in their favour. Although, however, it has been usual for judges to put the question of utility to the jury, there is no case which has decided that a defendant can avail himself of the non-utility of the invention as a distinct ground of defence. *Manton v. Parker* is the only case which bears the semblance of being an authority to that effect. But there the word useful plainly meant, useful for the particular purpose for which the patent was taken out: the case is certainly no authority, that the plea of no improvement is a defence (m). The same observation applies to *Haworth v. Hardcastle*, *Boulton v. Bull*, and to the other cases. In *Hill v. Thompson*, as appears by the report of the case at law, the question of usefulness was not in fact left to the jury. *Huddart v. Grimshaw* was determined on the question of novelty. On the other hand, the authority of Lord Tenterden, C. J., and Parke, J., in *Lewis v. Marling*, is directly in favour of the plaintiffs.

Cur. adv. vult.

The judgment of the court was delivered by

Judgment.

PARKE, B. (After stating the pleadings, his lordship proceeded): The first question in this case is, whether the verdict for the defendants on the fifth plea ought to be set aside, and a verdict entered for the plaintiffs, pursuant to the leave reserved by my brother Alderson. Unless this question should be dis-

(l) This appears questionable; the utility of the invention is suggested to the crown as the motive and consideration for the grant. See *Law & Practice*, Pr. F. I., n. c.

(m) *Manton v. Parker*. In this case the patent was for "a hammer, on an improved construction, for the locks of all kinds of fowling-pieces and small arms;" and a material part of the invention consisted in a means of letting out the air from the barrel, and causing a communication between the powder in the pan and in the barrel,

without, at the same time, letting out the powder. The witnesses for the defendant having proved that the powder passed through the same hole as the air, the Lord Chief Baron held, "that the utility of the invention and the purpose of the patent wholly fail; for the purpose of the hole, as described in the specification, is to let the air pass through, and at the same time secure the powder from passing through; that of itself would be an answer to the action." Dav. Pat. C. 327.

osed of in favour of the plaintiffs, it would be unnecessary to consider whether the plaintiffs be entitled to judgment *non obstante veredicto* on the third and sixth pleas; for if the fifth plea were to remain undisturbed, that would be an answer to the action. The course which was taken with respect to this plea at the trial was, to ascertain the facts, upon which the learned judge gave his opinion in favour of the defendants, but at the same time reserved liberty to the plaintiffs to move to enter a verdict in their favour, if the court should be of opinion that the facts ought to have been left to the jury; that is, that they were such that the jury might infer from them that there had been a use or publication of the invention, so as to destroy the novelty of the patent. The evidence was, that before the date of the patent (which was the 22d July, 1829), Curtis, an engineer, made for Morgan two pair of wheels upon the principle mentioned in the patent, at his own factory. Galloway, the agent, gave the instructions to Curtis under an injunction of secrecy, because he was about to take out a patent. The wheels were completed and put together at Curtis's factory, but not shown or exposed to the view of those who might happen to come there. After remaining a short time the wheels were taken to pieces, packed up in cases, and shipped in the month of April on board a vessel in the Thames, and sent for the use of the Venice and Trieste Company, of which Morgan was managing director, and which carried on its transactions abroad, but had shareholders in England. Curtis deposed, that "they were sold to the company," without saying by whom, which may mean that they were sold by Curtis to Morgan for the company; and Morgan paid Curtis for them. Morgan and Galloway employed an attorney, who entered a caveat against any patent on the 2d of March, and afterwards solicited the patent in question, which was granted to Galloway and assigned to Morgan. Upon these facts, the question for us to decide is, whether the jury must have necessarily found for the defendants, or whether they might have found that this invention, at the date of the letters patent, was new in the legal sense of that word. The words of the statute are, that grants are to be good "of the sole working or making of any manner of new manufacture within his realm, to the first and true inventor or inventors of such manufactures, which others at the time of the making of such letters patent and grants did not use;" and the proviso in the patent in question, founded on the statute, is, that if the invention be not a new invention as to the public use and exercise thereof in England, the patent should be void. The word "manufacture" in the statute must be construed in one of two ways: it may mean the machine when completed, or the mode of constructing the machine. If it mean the former, undoubtedly there has been no use of the machine, as a machine, in England, either by the patentee

The term manufacture means either the machine, or the mode of constructing the machine.

himself or any other person; nor indeed any use of the machine in a foreign country before the date of the patent. If the term "manufacture" be construed to be "the mode of constructing the machine," there has been no use or exercise of it in England, in any sense which can be called "public." The wheels were constructed under the direction of the inventor, by an engineer and his servants, with an injunction of secrecy, on the express ground that the inventor was about to take out a patent, and that injunction was observed; and this makes the case, so far, the same as if they had been constructed by the inventor's own hands, in his own private workshop, and no third person had seen them whilst in progress. The operation was disclosed, indeed, to the plaintiff Morgan, but there is sufficient evidence that Morgan at that time was connected with the inventor, and designing to take a share of the patent. A disclosure of the nature of the invention to such a person, under such circumstances, must surely be deemed private and confidential. The only remaining circumstance is, that Morgan paid for the machines with the privity of Galloway, on behalf of the Venice and Trieste Steam Company, of which he was the managing director; but there was no proof that he had paid more than the price of the machines, as for ordinary work of that description; and the jury would also be well warranted in finding, that he did so with the intention that the machine should be used abroad only, by this company, which, as it carried on its transactions in a foreign country, may be considered as a foreign company: and the question is, whether this solitary transaction, without any gain being proved to be derived thereby to the patentee or to the plaintiff, be a use or exercise in England, of the mode of construction, in any sense which can be deemed a use by others, or a public use, within the meaning of the statute and the patent. We think not. It must be admitted, that if the patentee himself had before his patent constructed machines for sale as an article of commerce, for gain to himself, and been in the practice of selling them publicly, that is, to any one of the public who would buy, the invention would not be new at the date of the patent. This was laid down in the case of *Wood v. Zimmer* (n), and appears to be founded on reason; for if the inventor could sell his invention, keeping the secret to himself, and when it was likely to be discovered by another take out a

The user of an invention by the patentee, for the purposes of commerce, before the date of the patent, will vitiate.

(n) See *Holt*, N. P. C. 58, and *ante* 44, n.

The using, exercising, and putting in practice the invention, for gain, previous to the date of the grant, seems to present a test generally applicable to cases of this kind. It excludes at once all the using of the invention by the patentee for the purpose of experiment, and of satisfying himself as to the practicability of his conception. This important doctrine was fully recognised and admitted in

Brumah v. Harcastle.

In that case it appeared in evidence, that the

plaintiff had made two or three of his improved water-closets before he obtained his patent; but *Brarcroft*, the defendant's counsel, admitted that this circumstance would not invalidate the patent, unless the invention had likewise been used by others; the statute empowering the crown to grant the monopoly for fourteen years, of any manner of new manufactures, to the first inventors, which others, at the time of making the patent, shall not use. *Holroyd*, 82, n.

ment, he might have, practically, a monopoly for a much longer period than fourteen years. Nor are we prepared to say, that if such sale was of articles that were only fit for a foreign market, or to be sold abroad, it would make any difference; nor that a single instance of such a sale as an article of commerce, to any one who chose to buy, might not be deemed the commencement of such practice, and the public use of the invention, so as to defeat the patent. But we do not think that the patent is vacated on the ground of the want of novelty, and the previous public use or exercise of it, by a single instance of a transaction such as this, between the parties, connected as Galloway and the plaintiff are, which is not like the case of a sale to any individual of the public who might wish to buy; in which it does not appear that the patentee has sold the article, or is to derive any profit from the construction of his machine, nor that Morgan himself; and in which the pecuniary payment may be referred merely to an ordinary compensation for the labour and skill of the engineer actually employed in constructing the machine; and the transaction might, upon the evidence, be no more in effect, than that Galloway's own servants had made the wheels; that Morgan had paid them for the labour, and afterwards sent the wheels to be used by his own co-partners abroad. To hold this to be what is usually called a publication of the invention in England, would be to defeat a patent by much slighter circumstances than have yet been permitted to have that effect. We therefore think, that as the jury might consistently with the evidence have found this issue for the plaintiffs, the verdict ought, pursuant to the leave reserved, to be entered on that issue for them.

The next question is, whether the plaintiffs be entitled to judgment *non obstante veredicto*, or a repleader, upon the finding of the issues on the third and sixth pleas. The questions involved in these two issues are different: I propose to consider, first, that on the third plea. The suggestion in the letters patent is, that Galloway had invented certain improvements in steam engines, and in machinery for propelling vessels, which improvements were applicable to other purposes, and the patent was granted for the invention of those improvements. But unless the specification be referred to, to explain the title of the patent, it is doubtful whether the invention claimed is of improvements in steam engines as connected with other machinery only, or of improvements in steam engines for whatever purpose they may be employed. Upon reference to the specification, there is no doubt that the claim is of the latter description; but that instrument is not stated in the record, and upon what appears on the record it is by no means clear that the patentee does claim an improvement in steam engines unconnected with the machinery; and if he does not, the plea would probably have been bad on

After verdict the plea must be taken in the sense which the specification discloses.

demurrer, as it is uncertain whether it does not deny the invention to be an improvement in steam engines unconnected with the machinery. But after verdict, this objection is removed; for it is a rule, that if an issue could have been material, the court after verdict ought to intend it to be so; *Kemp v. Crewes* (o); and as the plaintiff did not demur, it must be taken that he admits that the plea is to be understood as denying the invention to be an improvement in steam engines, in that sense in which it is used in the patent itself, and the jury must be intended so to have found.

This brings me to the question, whether this patent, which suggests that certain inventions are improvements, is avoided if there be one which is not so; and upon the authorities we feel obliged to hold that the patent is void, upon the ground of fraud on the crown, without entering into the question whether the utility of each and every part of the invention is essential to a patent, where such utility is not suggested in the patent itself as the ground of the grant. That a false suggestion of the grantee avoids an ordinary grant of lands or tenements from the crown, is a maxim of the common law, and such a grant is void, not against the crown merely, but in a suit against a third person (p). It is on the same principle that a patent for two or more inventions, when one is not new, is void altogether, as was held in *Hill v. Thompson* (q), and *Brunton v. Hawkes* (r); for although the statute invalidates a patent for want of novelty, and, consequently, by force of the statute the patent would be void so far as related to that which was old, yet the principle on which the patent has been held to be void altogether is, that the consideration for the grant is the novelty of all, and the consideration failing, or, in other words, the crown being deceived in its grant, the patent is void, and no action maintainable upon it. We cannot help seeing on the face of this patent, as set out in the record, that an improvement in steam engines is suggested by the patentee, and is part of the consideration for the grant; and we must reluctantly hold that the patent is void, for the falsity of that suggestion. In the case of *Lewis v. Marling* (s), this view of the case, that the patent was void for a false suggestion, does not appear by the report to have been pressed on the attention of the court, or been considered by it. The decision went upon the ground that the brush was not an essential part of the machine, and that want of utility did not vitiate the patent; and, besides, the improvement by the introduction of the brush is not recited in the patent itself as one of the subjects of it, which may make a difference. We are, therefore, of opinion, that the

The novelty of every part of the invention is the consideration for the grant.

(o) 1 Lord Raym. 187.

(p) The case of *Truvel v. Carteret*, 3 Lev. 135, and *Alcock v. Cooke*, 5 Bing. 340, were cited with reference to this principle of the common law. See

ante 41, n. and *Law & Practice*, IND. tit. False Suggestion.

(q) 2 Moore, 424. 8 Taunt. 375.

(r) 4 B. & Ald. 542.

(s) 10 B. & C. 22; 5 M. & Ry. 66.

endants are entitled to our judgment on the third issue. It is a satisfaction to know, that this objection will not necessarily, in the present state of the law, destroy the patent, as the objection one which will probably be removed by the Attorney General under the 5th and 6th W. 4, c. 83. This view of the case makes it unnecessary to consider the effect of the finding on the 4th issue, as amended by the judge's notes, that part of this invention is not useful, which is a different question from that which we have disposed of. A grant of a monopoly for an invention which is altogether useless, may well be considered as mischievous to the state, to the hurt of trade, or generally inconvenient," within the meaning of the statute of Jac. 1, which requires, as a condition of the grant, that it should not be, for no addition or improvement of such an invention could be made by any one during the continuance of the monopoly, without obliging the person making use of it to purchase the useless invention; and on a review of the cases, it may be doubted whether the question of utility is any thing more than a compendious mode, introduced in comparatively modern times, of deciding the question, whether the patent be void under the statute of monopolies (t). And we do not mean to intimate any doubt as to the validity of a patent for an entire machine or object which is, taken altogether, useful, though a part or parts may be useless, always supposing that such patent contains no false suggestion; nor do we pronounce any opinion upon the efficiency of this plea in point of form. It may be, that the proper form of plea is to use the words of the statute, and not to plead the want of utility: though it would probably be too late to take that objection in the present stage. The rule, therefore, must be absolute, to enter a verdict for the plaintiffs on the 4th plea, and discharged as to the residue.

Monopoly of an invention altogether useless, is mischievous to the state.

The inutility of parts of an invention will not vitiate, if the result on the whole be useful, provided there be no false suggestion.

Rule accordingly.

LOSH'S PATENT.

Letters patent to William Losh, 31st Aug. 1830, for "certain *Title.* improvements in the construction of wheels for carriages to be used on railways."

I, the said William Losh, do hereby declare, that my said in- *Specification.*vention is described and ascertained in manner following, (that to say)—The object that is intended to be attained by my

(t) The question of utility seems to present a question of general applicability as to the validity of a patent, in respect of the subject-matter of the invention; for it may be presumed that wherever utility is found to exist in a very great degree, there must be some invention sufficient to support a patent; and further, that such invention, when

once used by others, or in public use and exercise, would not be lost sight of. But it may be suggested, whether it does not very clearly appear from the early cases (*ante* 8), that the utility of the invention was an indispensable requisite at common law.

said improvements in the construction of wheels for carriages to be used on railways is, to render such wheels more durable, and less liable to be damaged or broken than the wheels hitherto in use upon railroads, by the violence of the shocks to which they are liable when travelling on railways; and more particularly when propelled with rapid motion along railroads. The spokes, the rims or felloes, and the tires of wheels, constructed according to my said improvements, are to be made wholly of malleable iron. The spokes are to be joined one to another, and to the rims or tires, and to a cast iron central nave, in the manner hereinafter particularly set forth, whereby the spokes are all so firmly fixed to the cast iron nave, and to the rim, and united one to another, that they will all act simultaneously to support or sustain the cast iron nave in the centre of the wheel, and to preserve the true form of the wheel in every respect. By forming those parts of the wheel which are most liable to suffer injury from shocks of malleable iron, and the several parts being firmly joined, the liability of such wheels to fracture will be greatly diminished. The drawings hereunto annexed represent different modes of constructing wheels according to my said improvements, for carriages to be used on railways. * * (a)

Claim.

Having now described the construction of wheels made according to my improvements for carriages to be used on railroads, I do hereby declare that I make no claim to the exclusive right of iron spokes, or wrought iron tire, for such wheels; nor to the mode hereinbefore described, of uniting wrought iron spokes to the cast iron nave; but my invention consists, First, In the improvement, hereinbefore described and represented in figs. 1 and 2, of making the wheels of carriages to be used on railways, with wrought iron spokes, having elbow bends and curved prolongations from such spokes, which prolongations join one to another, in the manner hereinbefore described, so as to form a circular rim of wrought iron to support and give strength to the hoop of wrought iron tire which is applied and fixed around that circular rim.

Secondly; In the improvement hereinbefore described, and represented in figs. 3, 4, and 8, of either making the circular hoop of iron tire, which is to be applied around the circular rim of any wheels for carriages to be used on railways, out of bar-iron, which is rolled with projecting beads at the edges, on that side which is to form the inside of the hoop of tire, in the manner hereinbefore described, and shown in figs. 2, 3, and 8; or, &c. (b).

(a) Here follows a detailed description of the drawings. For the specification at full length, with the drawings, see Repy. of Arts, No. 53, N. S. 277.

(b) The residue of this claim was disclaimed 23 July, 1836, previously to the commencement

of the subsequent legal proceedings, on the ground of its being doubtful whether the part of the invention to which it referred had not been practised, with some modifications, in some kinds of wheels. See Disclaimer in 9 Repy. of Arts, N. S. 277.

ly; In the improvement hereinbefore described, and recited in fig. 5, of making the wheels of carriages to be used on rails with wrought iron spokes, moulded at their outer ends to the form shown in the drawing, having elbow bends at their outer ends to form feet, which ends of the spokes are secured by welding, or by conical bolts or rivets without heads, at their side, either to a complete ring of wrought iron, around which a hoop of wrought iron tire is to be applied and fixed, or a hoop of wrought iron tire, made of sufficient strength to sustain its circular curvature without any such inner ring, in the hereinbefore described (c).

thly; In the improvement hereinbefore described, and recited in fig. 6, of forming each spoke of two bars of iron, joined together at one end, as far as the elbow bends, and the ends beyond those elbow bends being bent in opposite directions to form curved prolongations of each of the compound spokes on each side thereof, and which prolongations when joined together, form a circular rim, upon which the tire is laid, as described, and as shown in the drawing, fig. 6.

In witness, &c. (d)

question arose in the subsequent proceedings as to the nature of this claim, whether it was for the spokes with the curved ends, whether it also includes the combination of spokes, producing the felloe, and of a flanged tire, shrunk on as de-

the subsequent proceedings on this patent, reference is made to letters patent granted in 1808, to

Thomas Paton,

in new improvements in the construction of wheels for carriages."

The specification described several improvements, of which the following only are important:—the use of the nave of wrought iron; the insertion of spokes of wrought iron, or other metal; the use of the felloes, or external circle that the spokes rest on, of iron or other metal, and making the spokes of one solid piece, or fixing them to the spokes with rivets, screws, and in any other way as convenient. See specification and drawings, Repy. Pat. Inv. No. 53, 8.

The question was, whether this specification described and included the third claim of Losh's patent; or whether that claim only extended to the spokes, and not to affixing them to a complete ring, and shrinking the proper tire on to such a ring. See post.

It will be observed, that Paton's specification described wheels for gigs, chaises, &c., and that the wheels on railways was, at the date of it, hardly contemplated.

It is also made to letters patent granted in 1816, to

W. Losh and G. Stephenson,

for "a method or methods of facilitating the conveyance of carriages, and all manner of goods and materials along railways and tramways, by certain inventions and improvements in the construction of the machines, carriages, carriage wheels, and railways, for that purpose." The specification describes a method of fixing more securely and truly the parts of the edge and plate railway, so that several rails or pieces might be fixed immovably to the chairs, and with their ends abutting truly on each other; also a method of sustaining the weight of locomotives and carriages on pistons inserted in cylinders of fluids. The invention in respect of railway wheels consisted in applying a wrought iron tire to cast iron wheels, and in applying wrought iron rings, or felloes, to wrought iron spokes, set in cast iron naves; and in wheels of small diameter, instead of spokes of wrought iron, employing plates of malleable iron, to form the junction between the naves and the cast iron rims of the wheels. See Repy. Pat. Inv. No. 180, 2d series.

It appears from the preceding and other sources, that before the date of Losh's patent, various methods of making wheels for railways were in use. Some wheels were made wholly of cast iron, and were suitable for heavy weights at low speed; these cast iron wheels were improved by putting on a rim of wrought iron tire; a further improvement was, the use of wrought iron spokes, one end being cast into a cast iron nave, the other into a cast iron ring, or felloe, on which cast iron ring or felloe was received the wrought iron railway tire. All the wheels made in this manner were liable to break suddenly at high velocities, owing to the shocks and brittleness of the cast iron felloes. This objection was in a great measure obviated in Losh's wheels, which could be used with safety at the greatest speeds.

LOSH v. HAGUE.

*In Chancery.**Cor. Sir L. Shadwell, V. C., Aug. 9, 1837.*

The bill, having stated the plaintiff's title and the enrolment of the specification and the disclaimer in the usual manner, set forth the whole of the specification, omitting the parts disclaimed, and craving to refer to copies of the drawings annexed to the specification deposited with the clerk in court for all purposes of elucidating the said specification, or otherwise in the cause, averred that the letters patent were in full force, and that the plaintiff had fully enjoyed the profits thereof; and having further stated the making and selling by the defendant of wheels made on the principle of the plaintiff's invention, and the defendant's refusal to desist from so doing, and that the defendant had recently received a large order for wheels of the same kind from the London and Birmingham Railway Company, prayed an injunction, and an account of the profits which had been made from the sale of the wheels so made.

The statements in the bill were verified by the usual affidavits, and various other affidavits having been filed on the one side as to the novelty, utility, and merit of the invention, and on the other side tending to impeach the validity of the patent, an injunction was moved for on the ground of the uninterrupted enjoyment by the plaintiff of his invention for seven years, and until the infringement by the defendant, and that credit was to be given to the validity of a patent after possession of such duration. The motion was opposed, on the ground that the plaintiff's patent was invalid, by reason of a part of the invention set forth in the specification having been invented and used by Paton before the date of the plaintiff's patent.

Sir L. SHADWELL, V. C.: It really seems to me that this is a case in which I must grant the injunction, because, as I understand it, the wheels that the defendant has made are certainly wheels made according to that thing for which, as I understand it, the plaintiff has taken out his patent,—the substance of part of the patent being for making wheels that shall have the spoke and the felloe in parts of the same piece, that is, in other words, the spoke is to be made with an elbow bend, which elbow bend will constitute a part of the felloes. Now it seems to me that there can be no question, but that the wheels complained of as having been made by the defendant, do answer the description of the plaintiff's wheels, and I do not think it enough on a question of injunction, for the defendant to say, why he has done the thing complained of, but will not do it again. That is not the point, because if a threat had been

An injunction being applied for, it is not sufficient for the defendant to admit the infringement, and promise not to repeat it.

used, and the defendant revokes the threat, that I can understand as making the plaintiff satisfied; but if once the thing complained of has been done, I apprehend this court interferes, notwithstanding any promise the defendant may make not to do the same thing again. I cannot but think, however, that there is a good deal of question raised, by means of the production of Paton's patent, and what is stated by the witnesses on the part of the defendant, on the point whether altogether the thing which is so stated in the plaintiff's specification as an invention is an invention or not; there is a question on it, and it appears to me that even if Paton's specification and patent were in point of fact bad, yet if Paton had actually been making wheels which were on that principle on which the plaintiff's were made, then the plaintiff's patent would fail. The thing is certainly left in doubt on that very affidavit made by Paton's people; they have not sworn to the fact in the simple manner they might have sworn it, but they have so sworn it as to leave it uncertain what they do mean: they have sworn that in all material parts the things were the same, except something which is immaterial. If they had said all parts were the same, that would come to the point, and I should have understood it, but they have not sworn to that fact, and therefore, they have left a doubt on their own affidavit as to what it was they meant to state. I cannot but think that if the matter was to depend on Paton's patent, there would be great ground for saying that the specification is not good. It may, perhaps, be held, if it were to go before a jury, that it was good; that I can understand; but it is quite obvious to my eye, as I view the drawings annexed to the specification, that they do not represent the thing which he meant to be represented; if it be the fact that he meant to have represented that the spoke and the felloe were made of one piece, it is evident from the drawing that that is not so represented, because the drawing introduces internal lines, which of necessity give the appearance to the eye of a combination of parts, and not one piece; and when I look on the singular language which he has used in the body of the specification, it does not appear to be at all clear on the words used, that he did mean that thing which is imputed to him; and, certainly, if he did mean to say so, then the drawings have contradicted the words, and have represented one thing and the words another. As to the length of time that has elapsed, I do not think there is much in that. On the 23d of March, the plaintiff received some information that there was an invasion of his patent, and some portion of time it appears was spent in making inquiries; there was notice given distinctly on the 8th of May. Then some further correspondence takes place, and letters between the parties; and then a bill is filed, on the 7th of July, and the application is virtually made. I cannot but think,

Sir L. Shadwell, V. C.

Time within which an application should be made.

therefore, that the plaintiff has come in sufficient time, and the only thing that rather appears to me to be probable, is, that the substantial grievance is but small, because if it be true that the defendant will not make any such wheels again, and if it be true that he has taken a contract with the London and Birmingham Company, for making wheels of a different description, this is very little more than a mere scientific discussion on an abstract right. In these cases on patents one is obliged to go a great deal on hypothesis alone—it seems difficult to make out what the real fact is. It appears to me there must be an injunction, and you must undertake to bring such action as you may be advised. And reserve all further directions.

Order.

This court doth order that an injunction be awarded against the defendant John Hague, to restrain him from directly or indirectly making, using, or putting in practice, the plaintiff's invention of certain improvements in the construction of wheels for carriages to be used on railways, in the plaintiff's bill mentioned, or any part of the same, or in any wise counterfeiting, imitating, or resembling the same, until the defendant shall fully answer the plaintiff's bill, or this court make other order to the contrary.

LOSH v. HAGUE.

Trial at Law.

Cor. Lord Abinger, C. B., Trin. Vac. 1838.

Declaration.

The declaration having stated the grant of the letters patent, the enrolment of the specification, and the entry of the disclaimer, assigned as breaches—That the defendant made and sold divers wheels for carriages to be used on railways, in imitation of the undisclaimed invention of the plaintiff, and divers other wheels for carriages to be used on railways, in imitation of the parts of the invention of the plaintiff so not disclaimed as aforesaid.

Pleas.

To this the defendant pleaded,—1. Not guilty. 2. That the said supposed improvements in the construction of wheels for carriages to be used on railways claimed by the plaintiff, and not disclaimed in his disclaimer, are only trifling and insignificant alterations in the mode of making wheels before then known and in public use, and are not legal subjects for the grant of the said letters patent. 3. That the plaintiff was not the true and first inventor of the said supposed improvements. 4. That the plaintiff did not by any instrument in writing particularly describe and ascertain the nature of his said invention, and in what manner the same was to be, and might be, performed.

The notice of objections was substantially the same as the as (a). At the trial a considerable body of evidence was placed on both sides, the general nature of which will sufficiently appear in the following extracts of the summing up of the learned judge.

Lord ABINGER, C.B.: Gentlemen of the jury, this action is brought by the plaintiff Mr. Losh, against the defendant Mr. Hague, to recover nominal damages for the purpose of vindicating his right to a patent which he claims, and which he says the defendant has infringed.

Some years ago, when an action was brought for the infringement of a patent, the defendant did nothing more than plead that is called the general issue; and when he pleaded that which was the only plea the law allowed him, the plaintiff was under the necessity of proving every part of his case: he was obliged to prove the patent, the enrolment within due time, that the specification was proper, and that the invention was novel and beneficial, that it was useful, that he had prepared it for the accommodation of the public, and that the defendant had infringed it; but by some recent alterations in the law, a defendant now is obliged to put all those matters into separate pleas; so that when he puts the plaintiff to prove his case, he is under the necessity of putting into separate pleas all those matters; the defendant is now obliged to put something on the record to bring the specification into question, because, if he does not, he would admit it. Further, by a recent act of parliament, a defendant is now obliged to give a notice of objections to the plaintiff, besides the pleas. We have had the first fruits, so far as my experience goes, of that new act of parliament to-day, but I never conceived those objections were intended to be urged before the jury, I thought they were merely to apprise the plaintiff of what he was to be prepared to meet.

The notice of objections is to apprise the plaintiff of what he has to meet.

The real question is reduced to this: the third issue is, whether the plaintiff was, at the time of the making of the letters patent, the true and first inventor of the said supposed improvement in the construction of these wheels for carriages to be used on railways. Now I shall, in the outset, state what I conceive to be the law on that subject; if I am wrong I shall be corrected somewhere. If a man claims by his patent a number of things, being the inventor of them, whether they consist of improve-

a) Practice as to notice of objections under 5 & 6 v. 4, c. 83, s. 5. The defendant had omitted on pleading to give to the plaintiff a notice of any objections on which he meant to rely at the trial, but a summons was subsequently taken out before the judge at chambers for leave to deliver such notice *ex parte*. This summons being opposed, the ground that a judge had not the power to grant the application, the word 'other' in the second section showing conclusively that unless some objection, one at least, had been given in, the authority

under the statute could not be exercised, the matter came before the court.

Alderson, B.: Perhaps if the point be insisted on, we can only give the defendant leave to plead *de novo*.

Parker, B.: The court has power to grant the defendant leave to plead *de novo*. Therefore let the pleas already pleaded be considered as if pleaded *de novo*, and let the objections be then added, and considered as if delivered along with the pleas.

If one of several things claimed be not new, or an improvement, the patent is void.

ments or original inventions, and it turns out that some of them be not original and not improvements, his patent is void. The question, therefore, which you are to try is, not merely whether Mr. Losh has made some improvements upon wheels which existed before, but, whether all the improvements which he claims to be so are original. That is the question you have to try. It may still be safely admitted, probably, that Mr. Losh is a very ingenious man, and has made several beneficial improvements. The learned counsel has been endeavouring to show you, that those improvements are improvements on Paton's patent. The question for you to try is, whether some of the improvements which he has stated in his specification as his own, have not already been made, that is the question; if having Paton's patent before him, and seeing what Paton had invented, or if, knowing by inquiry what Paton had made and what Paton had sold, he had referred to that in his specification, and had stated the distinction between this and that, and had stated that such was the improvement he claimed, his patent certainly could not have been touched.

Now let us see what is the evidence on which that question turns, for that appears to me, notwithstanding the length of the case, really to be very short. I will first represent to you what the evidence appears to be upon Paton's patent, and the wheel made before. The witnesses say Paton invented a mode of making the wheels of wrought iron, and they say Paton, by his patent, shows that. The gentlemen who have read the patent say, that though he does not use the word wrought iron for the purpose of showing how the inner circumference of the wheel is to be made, yet when he says the spokes are to be made of wrought iron, and the spokes and periphery are to be welded into one, and that is to form the wheel (I will go to the minute parts presently), they say that denotes that in point of fact he meant them both to be of the same material, wrought iron. But it does not rest on Paton's patent, because Mr. Embleton proved to you, that the first wheel they made was rivetted, and on being tried would not answer; and he says, that upon his suggestion all the other wheels, thirty pair in number, which were made by Paton, were made with the circumference of the inner rim entirely of wrought iron, and then welded into one piece. That is what he says. You have had a model of a wheel produced to you, and you are to judge of that. Then they produce after Paton's patent a model which is to represent his drawing containing this; and they produced an original piece taken from one of the wheels to show you. They say, here is the spoke of the wheel which is welded into the part of the circumference. Now one of the advantages Sir F. Pollock says Losh's patent has over Paton's is, that instead of welding it on he bends it down. I observe one of the pleas states, that the

improvements are something trifling and insignificant. If that is the improvement, you will consider whether it is worth a patent or not (b). Several of the witnesses have proved to you, that when a piece is properly welded, the particular parts united by the weld are quite as strong as any other part of the piece, if not stronger, and, consequently, if it be welded on, it seems—it is for you to judge—that there is no particular advantage that it should be one piece bent, over the two pieces welded together in his way. Well, this being the case, this is one of the spokes, and they represent that another spoke is to come on here, and the piece is to be welded to this, and the inner rim is to be welded. Sir Frederick Pollock says, that is not in his patent; for aught that appears in his patent they are only to be bound by an outer rim, namely a tire, and therefore they might be loose pieces. Supposing that to be so, the question you have to try on the originality of Losh's invention is, not whether Paton's patent contains that perfect periphery that is required in this case, but whether wheels have been publicly made on this principle; if the wheels had been made and sold to any one individual, the public's not wanting them because there were no railways, their not being adapted to any particular use which at that time was open to the public to apply them to, makes no difference. You have it in evidence from that witness Emberton, and the person who was called after him, the deaf man, Mr. Mann, that these wheels were made in the first instance; that thirty pair were made with a complete continuous circumference all round. Then what signifies the words of the specification? if they were so made and sold, or used at all, though not for any purpose that then made them popular or desirable, still they are made with that particular advantage which is claimed by Losh's patent, namely, a periphery made of one continuous piece of wrought iron, as well as the spokes. But that is not all the evidence; there are two persons from Manchester; one Horsfall says, that he remembers nearly twenty-eight years ago, in the year 1810, when he came into the employ of his present employers, that there were three trucks, having each three wheels, and those wheels were made of wrought iron spokes in a wrought iron circumference, and there is one exhibited before you which was actually in use at that time; the other, Roberts, confirms that, and has stated that they existed for many years, and that they have been used. Mr. Roberts states, that he himself has made wheels upon this construction; but as he cannot state the

Whether an improvement is trifling and insignificant or not, is a question for the jury.

The publicly making and selling an article, though there be no demand or use for it, will vitiate a subsequent patent.

(b) This question would appear, both on the authority of the learned Chief Baron in this case, and from the nature of the thing, to be peculiarly a question for the jury; and this defence must consequently be specially pleaded. In the case of *Braxton v. Hawkes*, 4 B. & Ald. 554, *Bailey, J.*, expresses an opinion that there could not be a valid patent for making in one entire piece what before

had been made in two pieces; but it is submitted that *dictum* must be received and applied with caution, since the avoiding that joining might constitute a most material improvement. The utility of the change would appear to be the test to be applied, and of this the jury are to judge according to the evidence. See *ante* 71, n. c.

Lord Abinger,
C. B., to the
jury.

period of the year 1831 at which he made them, he must not be considered as having made any thing of that sort before Losh's patent, and I lay that out of the question; but yet you have the circumstance of those wheels made for the use of Roberts and Sharpe's manufactory, and you have the wheels made by Paton's people as far back as the year 1809 and 1810, up to the year 1813, when he died.

You will judge whether Losh does or does not claim in his specification, as part of his improvement, that construction which those wheels so long ago made actually exhibited. I quite agree with the law laid down by Sir F. Pollock, that a man can always take out a patent for a new improvement; but when he makes his specification, he must take care that he does not put among his improvements that which another man had before made, or had got a patent for. Now when you look at this patent, it is for you to consider this: he says, that patent is for certain improvements in the construction of wheels for carriages to be used on railways, &c (c). Now it appears here, that one of his modes is to make the circular rim consist of detached pieces, which are united to the spokes in the first instance; and then those detached pieces are either rivetted together, or welded together, to form a continuous circle. By that means he effects an iron wheel made with wrought iron spokes, and with a wrought iron circumference. They say, Paton's patent has done the same, and the only difference between the two cases is, that in the one case they have welded the spokes into the circumference, while in the case of Losh's the spoke is formed, and the circumference is formed, of part of the same piece. Is there any importance in that? That is a point I shall leave to your consideration on this part of the case (d). But it does not rest on this point only: the question is, whether if any man, after the date of Losh's patent, had made a wheel according to Paton's patent, and had welded the spoke into the circumference, not bending the spoke so as to make it part of the circumference, Mr. Losh might not very justly have complained of that as an infringement of his patent, because he would have called men of science to prove that the welding was just as good as the original piece bent, and it would make no difference.

There has been a contest between the learned counsel and the witnesses, that it is not stated in Paton's specification, as in Losh's, that the periphery and the spoke are to be joined together. But Paton's patent is not an important thing for you to consider; it is a light you may look at, but it does not decide the case. The question is, what was made by the workmen; and if it had been made by Paton, and Paton's patent had never existed at all, the question would then have been just the same.

(c) The learned Chief Baron here read over and commented on the specification.

(d) As to the effect of a change of this nature being a proper question for the jury, *ante* 205, n. b.

et us see what it is he claims. He says, "I do hereby declare ^{Lord Abinger, C. B., to the jury.} that I make no claim to the exclusive use of iron spokes, or wrought iron tire." If he had not qualified his specification by that statement, the result would have been, that if any one had shown a wrought iron spoke used in a wheel before the patent was obtained, it would have been sufficient to render the patent invalid. Then, in the third claim, he speaks of a hoop of wrought iron tire, strong enough to hold the spokes without any inner rim at all; but you may make a tire over it, which tire I do not claim: therefore the claim simply is, he claims his mode, but he claims also the wrought iron periphery as part of his mode, at the same time. If I am wrong in that I shall be corrected hereafter. It does appear to me, he claims a wrought iron circumference as a part of the *modus operandi* of making his wheel. If you are of that opinion, if you think he substantially claims the wrought iron periphery as part of his improvement, and you think that that wheel, with the wrought iron periphery, has been made before, and made substantially in the same manner, I am of opinion, and I very much regret it, that the defendant will be entitled to your verdict.

The learned counsel has stated to you, and very properly, and it is a circumstance to be attended to, that Mr. Losh has taken out his patent to use his wheels on railways. Now, he says, the wheels made by Mr. Paton, or by the other workmen who were called as witnesses, were never applied to railways at all. That opens this question, whether or not a man who finds a wheel ready made to his hand, and applies that wheel to a railway, shall get a patent for applying it to a railway. There is some nicety in considering that subject. The learned counsel has mentioned to you a particular case, in which an argand lamp burning oil having been applied for singeing gauze, somebody else afterwards applied a lamp supplied with gas for singeing lace, which was a novel invention, and for which an argand lamp is not applicable, because gas does not burn in the same way as oil in an argand lamp. But a man having discovered by the application of gas he could more effectually burn the cottony parts of the gauze by passing it over the gas, his patent is good (e). That was the application of a new contrivance to the same purpose; but it is a different thing when you take out a patent for applying a new contrivance to an old object, and applying an old contrivance to a new object—that is a very different thing: if I am wrong, I shall be corrected. In the case the learned counsel put, he says, if a surgeon goes into a mercer's shop, and sees the mercer cutting velvet or silk with a pair of scissors with a knob to them, he seeing that would have a

There is a material distinction between applying a new contrivance to an old object, and an old contrivance to a new object.

(e) The case referred to is Hall's patent, ante 96. The subject-matter of that patent was the new manufacture of lace, which resulted from

such an application of gas; such lace had not been known before.

right to take out a patent, in order to apply the same scissors to cutting a sore, or a patient's skin. I do not quite agree with that law. I think if the surgeon had gone to him and said, "I see how well your scissors cut," and he said, "I can apply them instead of a lancet, by putting a knob at the end," that would be quite a different thing, and he might get a patent for that; but it would be a very extraordinary thing to say, that because all mankind have been accustomed to eat soup with a spoon, that a man could take out a patent because he says you might eat peas with a spoon. The law on the subject is this: that you cannot have a patent for applying a well-known thing which might be applied to 50,000 different purposes, for applying it to an operation which is exactly analogous to what was done before. Suppose a man invents a pair of scissors to cut cloth with, if the scissors were never invented before, he could take out a patent for it. If another man found he could cut silk with them, why should he take out a patent for that (f)? I must own, therefore, that it strikes me, if you are of opinion this wheel has been constructed, according to the defendant's evidence, by the persons who have been mentioned, long before the plaintiff's patent, that although there were no railroads then to apply them to, and no demand for such wheels, yet that the application of them to railroads afterwards, by Mr. Losh, will not give effect to his patent, if part of that which is claimed as a new improvement by him is in fact an old improvement, invented by other people, and used for other purposes: that is my opinion on the law, and on that I am bound to direct you substantially. The learned counsel will have the advantage of it by and by, in case I am wrong. I therefore submit to you these two propositions. The only question you have to try is, whether all the improvements Mr. Losh has claimed in his patent be original; and in order to determine that question, you will have to consider, whether the wheels which the witnesses state to have been made by Mr. Paton, or his workmen, or made by the gentlemen in Manchester, were, in fact, made on the same principle, either in whole or in part; if in part, it is sufficient, as Mr. Losh claims the wrought iron periphery as one

The simple use of a known thing, not a subject-matter.

The application of an old wheel to railroads, is not the subject-matter of a patent.

(f) It is at once evident that applications of this nature cannot be said to be 'any manner of new manufacture'; they may be called inventions, in one sense of the term, inasmuch as something may be said to have been found out, some discovery may be said to have been made; but they are not such as can be the subject-matter of letters patent. Suppose any one to have discovered that a medicine known as a valuable specific in one class of complaints, fevers for instance, had also great efficacy for curing consumptions, the application of that medicine to such a new purpose would not be the subject-matter of letters patent. The medicine is a manufacture, and the making or compounding it might be the subject of a patent; but the medicine being known, the discovery of any new application is not any manner of manufacture.

Cases of this kind are well described by the term 'double use'; and under such circumstances it is truly said, there cannot be a patent for a double or new use of a known thing, because such use cannot be said to lead to any manner of new manufacture.

There is, however, a large class of cases in which a new use of a known thing is the substance or essence of the invention, as the use of the gas in improving lace, *ante* 98, or the use of charcoal in filtering sugar, *ante* 152; but in all these and similar cases a new manufacture is the result, and if the invention or discovery be examined according to this test, no difficulty can arise in determining whether the new case is such as can be protected by letters patent.

inventions. If you think the wrought iron periphery, as one of his inventions, has ever been applied before, say to me he has claimed too much. You will take the matter into your consideration, and judge for yourselves. If you think there is nothing in Paton's patent, or in the construction of the wheels made by his workmen, or the others, which resembles any thing which Mr. Losh claims—if that is the case then there is nothing that is not original on his part; but if you think it does, however you may regret it, it is a duty you owe to justice to give a verdict for the defendant. If you think otherwise, you are bound to give a verdict for the plaintiff, with all damages.

The jury found a verdict for the defendant on the third, and *Verdict.* for the plaintiff on the other issues.

The plaintiff subsequently disclaimed under the Statute of 5 & 6 W. 4, c. 83, s. 6, so much of the specification of the invention referred to in the third issue as being the only part of the invention of which novelty was disputed in the above pro-

cess as to Certificate and Costs, under 5 & 6 W. 4, c. 83, s. 6.—The learned judge certified the issues except the third had been proved for the plaintiff, and that the third had been proved for the defendant.

As to taxation of costs, the master taxed off the plaintiff's bill of costs, all the general costs of the cause, including instructions for writ, copy of summons, the copy and service, the costs for appearance, instructions for declaration, rule to plead and demand of plea, all fees, and all the other general costs of the cause, and disallowed to the plaintiff all the costs for obtaining, reducing, summoning, and paying the special jury, and only allowed the plaintiff for five folios of declaration out of five folios; and allowed to the defendant the taxation of his costs, all the general costs of the cause, and all the defendant's charges on the special jury, as well as those on the third issue, and from these deducted the costs of the plaintiff on the other three issues.

The plaintiff moved for a rule to show cause why the defendant should not review his taxation, on the Statute of 5 & 6 W. 4, c. 83, s. 6, had repealed the Statute of 2 W. 4, s. 6, which provides, "that no costs shall be allowed to a plaintiff, upon any counts upon which he has not succeeded; and of all issues proved for the defendant,

shall be deducted from the plaintiff's costs;" and that, consequently, under the statute, the plaintiff was in this case entitled to three-fourths of the general costs of the cause.

Per curiam. "The statute has not had the effect contended for. At the time it was framed, it was competent for the defendant to plead the general issue, and give any defence he might have in evidence under it. The legislature intended, by means of the objections and the certificate of the judge at nisi prius, to raise in effect so many distinct issues, the costs of each of which were to follow their respective results; but it was not meant to interfere with the practice of taxation in other respects. Before, however, the statute passed into a law, the same object was attained by the rules of the judges as to pleadings and costs. Those alterations, however, escaped the recollection of the legislature. With respect to the objections in the present case, they are only a repetition of what is already detailed in the pleas, and, therefore, do not much affect the costs. However, as six of them are found for the plaintiff, and only one, viz. that resembling the third plea, for the defendant, the plaintiff is in strictness entitled to six-sevenths of the costs of copying, transcribing, &c., those objections, and he may take a rule accordingly; but on the pleadings, he is only entitled to the costs of the issues found for him, and not to the general costs of the cause."

It would appear to follow as the result of the above decision, that the certificate of the judge should be as to the notice of objections, and not as to the issues; the defendant being entitled to the costs of so much of such notice as he shall prove at the trial.

BICKFORD'S PATENT.

His patent, 6th September, 1831, to William Bickford, for Title. Instrument for igniting gunpowder when used in the operation of blasting rocks, and in mining, called the miners' safety

Specification.

The instrument invented by me for igniting gunpowder when used in the operation of blasting of rocks and in mining, which I call "The Miners' Safety Fuze," I manufacture by the aid of machinery, and otherwise, of flax, hemp, or cotton, or any other suitable material, spun, twisted, and countered, and otherwise treated in the manner of twine spinning and cord making, and by the several operations hereinafter, and in and by the drawings hereunto annexed, mentioned and described. By means whereof I embrace in the centre of my fuze, in a continuous line throughout its whole length, a small portion or compressed cylinder or rod of gunpowder, or other proper combustible matter prepared in the usual pyrotechnical manner of firework for the discharging of ordnance, and which fuze, so prepared, I afterwards more effectually secure and defend by covering of strong twine made of similar material, and wound thereon at nearly right angles to the former twist by the operation which I call counterling, hereinafter described; and I then immerse them in a bath of heated varnish, and add to them afterwards a coat of whiting, bran, or other suitable powdery substance, to prevent them from sticking together, or to the fingers of those who handle them. And I hereby also defend them from wet or moisture, or other deterioration, and I cut off the same fuze in such lengths as occasion may require for use. Each of these lengths constituting, when so cut off, a fuze for blasting rocks and mining, and I use them either under water or on land in quarries of stones and mines, for detaching portions of rocks or stone or mine, as occasions require, in the manner long practised by and well known to miners and blasters of rocks. Having thus particularly described and ascertained the nature of my said invention, I now proceed to show in what manner and by what apparatus the same is to be performed, &c. (a)

In witness, &c.

(a) The specification proceeds to refer to and describe several drawings, representing the apartments of the buildings, and the machinery and general process of manufacture of the fuzes.

Prior to this invention, the fire was conveyed to the charge in blasting down a hole (the iron nail or tamping needle having been withdrawn) by means of rushes, reeds, quills, or tubes of metal, parchment, and other substances, filled with gunpowder, varying in length from a few inches to two or three feet in length, according to circumstances. These methods were all very dangerous and defective, and gave rise to many accidents; the nail or tamping needle being of metal, would sometimes, during the process of tamping, occasion a spark and explode the charge.

This specification sets forth the principle of the invention, and describes the means by which it could be carried into practice so as to produce the required result—the safety fuze.

The fuze being placed in the hole, in communication with the charge to be fired, and tamped round with sand, or in some other usual manner, or inserted through an opening in a box containing the charge, is ignited at one end, and burns extremely slowly, so that the person firing it may retire to any safe distance. This fuze being impervious to wet, burns equally well under water, so that it may be used for all the purposes of submarine blasting, an operation of considerable difficulty when the powder was fired by dropping a piece of red-hot iron down a tube reaching to the surface.

BICKFORD AND OTHERS v. SKEWES.

*In Chancery.**Cor. Lord Cottenham, L. C. 30th Aug. 1837.*

bill having stated the invention of the fuze by Bickford, ^{*Bill filed*}
 nt of the patent, the enrolment of the specification, the ^{*22d Aug. 1837.*}
 hment of a manufactory for the said fuzes, the partner-

Bickford with one of the defendants, the death of the
 kford, and the title of the plaintiffs under his will and as
 ers—averred, that the plaintiffs have continued to manu-
 the said fuze, and that no other person has any right or
 to make the same; and having further stated that the
 nt was infringing their patent right, and had received
 rofits from the same and refused to account for the pro-
 made, after the usual charges, prayed an injunction to
 the defendant from making and vending the said fuze,
 an account (b).

Lord Chancellor granted the injunction until the answer *Injunction.*
 per order, with liberty to apply.

Cor. Sir L. Shadwell, V. C., 10th Dec. 1838.

defendant having, by his answer, denied that the said
 d was the true and first inventor of the fuze or the ma-
 ; but had learnt it from a person who had gone about
 fuzes of the same description—

b, Q. C., and *Bethell*, moved to dissolve the injunction. ^{*Motion to dis-*}
 fendant's case is, that however great the ingenuity of Mr. ^{*solve the injunc-*}
 d, or the merit of the invention in respect of the ma- ^{*tion.*}
 ; he is not the inventor of the thing itself, others having
 izes of the same materials, and on the same construction.
 idavits state, that an Irishman, whose name is unknown,
 bout Cornwall selling and publicly exhibiting fuzes of
 ne description, and that Mr. Bickford gave this person
 shillings to teach him the mode in which these fuzes
 ade.

plying the argument for an injunction, on the ground of
 of enjoyment, regard must be had to the nature of the
 because that which may be such a length of enjoyment as
 ish strong presumption in one case, may furnish no pre-
 on in another case. The manufacture of an article
 d by every body, shoes for instance, carried on under
 patent, and acquiesced in for six or seven years, is strong

the inventor being dead, there was not in
 the usual affidavit of the patentee, that at
 of swearing the said affidavit he believed

himself to be the true and first inventor, and that
 the invention was new. See *Law & Practice, 12d.*
tit. Affidavits.

Motion to dissolve the injunction.

presumption in favour of the patent; but when, as in the present case, the article is of uncommon use, easily sent about, and for the supply of which one manufactory in the country is amply sufficient, so that it would not answer for any other person to set up the trade, the same kind of presumption cannot arise from long-continued enjoyment. Under such circumstances there will, in fact, be no acquiescence by the public, the parties interested being so extremely few.

The bill leaves it in uncertainty whether the patent is for the fuze or for the machinery; if for the latter, it might have been supported; but as it now appears to be for the fuze, and the affidavits state that the inventor obtained the idea from another person, the patent is not to be supported for the purposes of the injunction. This point was not raised until the present period, and the court should hear the affidavits as to this point and dissolve the injunction in the interim, until the matter can be tried at law. If the injunction be continued until the trial, so as to stop the defendant from proceeding, and that turns out to have been wrong, no compensation, according to the ordinary rules of the court, can be given, unless the plaintiffs were put under an undertaking to make such compensation to the defendant for any injury done in stopping him (c). In all cases of injunction, on the presumption from long-continued possession, the objection to the patent is on some defect in the specification, which is, as it were, the title deed of the patentee; and having been published to the world for a considerable time, and thereby challenging all questions, if there has been, with the consent of all other persons, an exclusive enjoyment under the title deed, the court will give credit to its legal validity, and will not refuse to protect the party in the mean time until the trial; but the objection of want of novelty goes to show that the patent ought not to have been granted (d). [Sir L. Shadwell, V. C.: Suppose the specification clearly bad, is not the patent then in the same situation as in the cases put? Is not the principle this: that the court sets the fact of the enjoyment against the legal objection, either of the badness of the specification, or the fact of the patentee not being the inventor?] The bill in this case is not framed on exclusive possession, for the purpose of applying the principles of the court as to exclusive possession and long enjoyment. The court cannot say here, with reference to the nature of the defence, that there has been exclusive enjoyment, or that the period of enjoyment is such as, within the authorities, would warrant the continuing of the injunction.

(c) A case of *Protheroe v. Good* was referred to, in which an injunction was applied for to restrain the defendant from stopping up a way-leave. The court thought there were sufficient grounds for granting the injunction until the hearing, but put

the plaintiff under an undertaking to make compensation, if requisite.

(d) The learned counsel cited the cases of *Boulton v. Bull*, 3 Ves. jun. 140; *Harmer v. Playne*, 14 Ves. jun. 130; and *Hill v. Thompson*, 3 Mer. 622; *Kay v. Marshall*, 1 Myl. & C. 373.

Sir L. SHADWELL, V.C.: In the case of *Kay v. Marshall* (c), certainly could not think it right in the first instance to allow a demurrer, but it struck me that sooner or later the question must be determined, and therefore, without allowing the demurrer, I directed that course of proceeding (d) to be adopted which would have the effect of determining the question at law; and determined at law, it was plain the question must be. But in that case I thought myself bound to oppose length of time, during which there had been the enjoyment of the patent, against any conclusion merely of law, which I myself might be inclined to draw from the specification, which in some measure appeared to me to be defective; and my Lord Chancellor, so far as the question was concerned, whether the demurrer should be allowed or not, entirely agreed with me, namely, that whatever may be the objection to the specification, this court is bound to look to the fact that there has been an enjoyment under the patent, as a sort of practical answer to the theoretical objection. My order went to direct, that there should be a trial immediately, before I gave a final opinion. Upon the argument of the demurrer, the Lord Chancellor said, that was no objection; and therefore he varied the order, but he did not disagree as to the view which was taken of the whole case, as presented by the bill. The Lord Chancellor all along recognised that sort of doctrine which the profession generally understood had been stated with sufficient clearness in *Hill v. Thompson*, and I understand in that particular case there is an objection of a given kind to the validity of the patent, namely, that the patentee was not the first inventor. Well, that was an objection of law, so if there was an objection to the validity of the specification, on the face of it, that would be an objection of law; but as I apprehend the circumstance, that there had been an exclusive enjoyment for a length of time under the patent, that would be, *prima facie*, such a circumstance as would bind the court to recognise the question of injunction, either in granting it or dissolving it.

I admit that if you were to say six years are sufficient, you may, by cutting off successive portions, reduce the six years to nothing. But I have nothing to do with any other case than the case before me, and I find the patent sealed in September, 1831, an injunction granted by my Lord Chancellor in September, 1837, and no attempt made to dissolve it until February, 1838; and then the attempt, such as it was, has been allowed to continue a sort of meagre existence from month to month, while affidavits have been put on the file. It appears to me to be rather too much to say that I am not to treat this case in the

(c) 1 Myl. & C. 373.

(d) His Honour, in the case alluded to, directed

the motion to stand over until an action was brought to try the validity of the patent.

An order for indemnity not usual.

manner in which Kay and Marshall, and Hill and Thompson, were treated. And it is admitted with respect to the order for indemnity, that it is unusual to make such an order for the indemnity of the defendant by the plaintiff, in case the thing should be proved to be wrong, and when I did go out of the way of the court in Kay and Marshall, to make an order consistent with justice, the result was, upon appeal, the order was held to be wrong, and I am not much inclined to go out of my way now. Therefore it appears to me, the usual order must be made in this case, namely, that the plaintiff should be put upon terms to bring such action as he may be advised (e).

Order accordingly.

Proceedings at law.

BICKFORD AND OTHERS v. SKEWES.

Declaration.

The declaration having stated the grant of the letters patent, the enrolment of the specification, and the title of the plaintiffs, and the user and exercise of the said invention by Bickford and his partner, and the plaintiffs—assigned as a breach, the making and selling divers, to wit, &c. instruments for igniting gunpowder when used in the operation of blasting rocks, and in mining, in imitation of the said invention, in breach, &c.

Pleas.

The defendant pleaded—1. Not guilty. 2. That the said Bickford was not the true and first inventor of the said instrument. 3. That the said invention was not at the time of the granting of the letters patent a new invention, but, on the contrary thereof, had been publicly used and exercised within England before, &c., to wit, on, &c., wherefore, &c. 4. Setting forth the specification, alleged to have been enrolled, and averring, that the said Bickford did not particularly describe and ascertain the nature of the said invention, and in what manner the same was to be performed, by an instrument, in writing, under his hand and seal, in pursuance of the said proviso in the said letters patent mentioned. The objections under the 2d and 3d pleas were an echo of the pleas, and under the 4th plea set forth several specific instances of alleged insufficiency, and uncertainty, and ambiguity. Amongst others, that the words “or any other suitable material,” were calculated to mislead, none

Objections.

(e) *Practice as to venue.* The defendant's counsel suggested that it should be part of the terms of the order, that the action should be tried in Cornwall, as all the parties reside there, but the Vice Chancellor refused, observing, that much useful information might perhaps be given by persons who were never in Cornwall. The venue was laid in London, but changed by order of Mr. Justice Coleridge to Devon, the jury to be summoned from the

district east of Exeter. An application was then made by motion in the suit to the Vice Chancellor for an order that the trial might take place at the ensuing assizes, which would be in a fortnight; this application was refused with costs, and an appeal to the Lord Chancellor was dismissed with costs. As to venue in actions, for the infringement of a patent, see *Law & Practice*, 12d. tit. Venue.

others being described, or any criteria given for ascertaining what was suitable; that the invention was impracticable, inasmuch as gunpowder cannot be used unless mixed with other materials, and that no other proper combustible matter than gunpowder is mentioned. A. D. 1839.

At the trial before *Coleridge, J.*, at the last Devonshire *Verdict*, *assizes*, the plaintiff had a verdict on all the issues.

Bompas, Serjt., in pursuance of leave reserved, moved for a rule to show cause why a nonsuit should not be entered, or a verdict for the defendant on the fourth issue; or why a new trial should not be had, on the ground of the verdict being against evidence. *Motion for nonsuit, &c.* Mich. T., 1839.

The specification, in describing the materials of which the fuze is to be composed, uses the words, "hemp, flax, cotton, or any other suitable material." No evidence was given at the trial of the inventor having tried any other material than flax, or that any other would do. That description is not sufficient; a party has no right to throw experiments upon the public. The specification also uses the words, "gunpowder, or other proper combustible matter." There was no evidence that any other substance than gunpowder would do. Colonel Pasley thought detonating powder might do, but he did not know. The insertion of this passage is mere speculation. The rules laid down in *Turner v. Winter (f)*, are strictly applicable to the present case. [Lord Denman, C. J.: Was there any evidence that the other things which he said would produce the effect would not produce it?] None. This specification is not accidentally, but intentionally, uncertain, meaning to grasp at more than the inventor himself had discovered, so as to keep other persons from using it, or making other experiments. As to the plea whether it had been publicly used in England, the evidence was, that there was an Irishman—of his existence there was no doubt, though no one knew his name—who went about selling fuzes, exactly the same as the present fuze; that he exhibited it in a blacksmith's shop, before those men who were there; that he let it off in the mine, and put it in water in the presence of every body, and gave it to the workmen, who took it down, examined it, and tried it—fired it off, and found it answer. This was in the street of Redruth, in the very centre of all the mining population. Many persons took it in their hands—they examined it—opened it, and saw there was powder in it, and that it was in the shape of a cord, and of so simple a description, that if you put it into the hands of any workman, he could, from simply

(f) *Ante*, 77, and cases there cited.

seeing it, immediately make another that would answer the pose. It is nothing more than gunpowder in the middle piece of twine. Not that such an invention ought to be excluded from a patent; the best improvements are the simple: the mere fact of showing such an article is a publication. Although a patent, supposing it to be good, is less good because it is for the most simple invention that was heard of, still if you make publication of so simple a thing it is known to every body the moment they see it. [Coke J.: I thought all this was for the jury; there was a great deal of negative evidence on the part of the plaintiffs; they called a great number of experienced miners, who said, until this invention they had never known of any thing like it.] Supposing to have been used in this way, I submit it is a public user. This has been repeated fifty times, can any one doubt that it has been a public user (g)? The true principle is this: in order to insure that when a person takes out a patent he shall be the inventor, some precaution is necessary that he should have had the means of learning it from other sources; therefore it is said, if it has been publicly used, it is too late for a person to have a monopoly. What is there to prove that Bickford did not learn this from individuals who had used it publicly? That is what the rule is to guard against; an experienced judge should have told the jury, that there had been publication of the invention (h).

(g) This argument would seem to show, that a question of this nature must be for the jury.

(h) The following was the evidence as to the point at the trial:—

Trengrove: "I saw an Irishman ten or eleven years ago in the western part of the mine. He had some safety rods with him, which he offered to the men who were going under ground. He set one on fire—touched the end with a fuze—the powder took—it burned all through, from end to end—he threw it in water—stamped on it, and threw it about—there was no putting it out. Outside it was hemp, bound round just the same as we are using now; too much tar or rosin about its outside. I saw no difference between it and the safety."

William Clemens: "I am a miner at Camborne; reared there, and worked in the mines in the neighbourhood twenty years; worked at North Roskier; began about thirteen years since; at first they used quills. Whilst working at North Roskier, there was a man came round there; they said he was an Irishman; about ten or a dozen years ago; saw him with a thing for blasting mines; it was made of hemp or twine, just the same as what the safety is made of now. I do not know particularly what part of the mine I was in when I saw him there—near the shop, but I cannot say exactly where it was; I had two of them in my hand, about eighteen or twenty inches long; we carried two under ground, put it into a hole, opened the end of it, lighted it; it went off very well; he had several more pieces, but I did not see him do any thing with it. Some time after I saw Bick-

ford. I know no difference between the way they burn in the same way. Mr. Thomas worked there when I had this from the Irishman; we were talking to one another about it; there could be a little improvement. I saw an Irishman in the public-house the same evening; he had plenty of these things with him then; they were tied round in a bundle."

Whether the facts above stated do or do not amount to a public use and exercise of the invention, such as would vitiate the subsequent patent of an independent inventor, is a question left in considerable doubt, on the result of the case. It is, however, an authority in favour of the manner of viewing this question adopted by C. J., in *Cornish v. Keane*, and by the Court in *Common Pleas. Ante 44, n.*

The facts of the preceding case furnish an illustration of the ambiguity which there is in the phrase, "the use of an invention." They may import, the simply using the fuze, in pursuance of its constitution, or of any mode of manufacturing it; and they may also import, the using and putting in practice the art of the fuze for sale, as an article of commerce, or the mines to have been supplied with this kind, imported from abroad, and that I had learnt the method of making them abroad, and had obtained a patent, and established a manufactory for them in this country, such a patent be good? See the small note *ante 12*. The protection of an invention imported, is clearly within the policy and

The case for the defendant was this. It was proved (by the witnesses on both sides) that a person answering the description had sold fuzes; that some iron work had been supplied him for the purpose of making his fuzes; that he lived in a certain house in which there was some manufacture of fuzes, which were described; that some agreement took place at a public-house with Mr. Bickford on the subject of fuzes, described to be substantially the same as those for which a patent was afterwards taken out. There was no evidence of how Mr. Bickford made the first and the second fuzes, or of how he got the machines made; but the only evidence was, that witnesses said there was a time when the fuze was not known—afterwards, these are sold; and this is to be taken in connexion with the number of witnesses who saw something of the kind before. [*Coleridge, J.*: All that was put to the jury for you—I thought it a strong part of your case.] The only evidence against us was, the body of mining agents not having known of this public use.

Lord DENMAN, C. J.: I think there must be a rule to show cause why a nonsuit should not be entered on the point of law arising on the specification, or why the verdict should not be entered for the defendant on the fourth issue; but with regard to the verdict being against evidence, my brother *Coleridge* is of opinion, the jury exercised their judgment on the subject. I have not the least doubt it was left fully to them to exercise that judgment, because it is clear, otherwise, it would have been a mere absurdity to ask their opinion on the effect of the evidence at all.

Rule accordingly.

The above rule having been argued, the judgment of the court was delivered by

Lord DENMAN, C. J.: The invention, the subject of this patent, professes to be an instrument for igniting gunpowder when used in the operation of blasting rocks, and in mining, and denominated the Miners' Safety Fuze.

The fourth plea sets out the specification at length, and concludes by denying that the patentee had particularly described and ascertained the nature of the said invention, and in what manner the same was to be performed. The issue was joined upon this, and at the close of the plaintiffs' case, it was objected that the specification was defective in two respects, and that the judge ought to have directed the verdict for the defendant. He

the patent laws, since the history of our manufactures presents many instances in which an invention, having been imported into this country, and

the manufacture established here, other countries have thenceforward been supplied from that source.

*Judgment on
rule for nonsuit.*

thought that the question as to both was for the jury—he then explained to them the specification—drew their attention to the supposed defect, as said to appear on the evidence—and left it to them to say, whether they were made out, or either of them. We think he could not properly have pursued any other course.

The specification, so far as it is material to be now stated, was thus:—"The instrument I manufacture, by the aid of machinery and otherwise, of flax, hemp, or cotton, or any other suitable materials, spun, twisted, and countered, and otherwise treated in the manner of twine-spinning and card-making, as by the several operations hereinafter and in and by the drawings hereunto annexed, mentioned and described, by means whereof I embrace in the centre of my fuze, in a continuous line throughout its whole length, a small portion or compressed cylinder or rod of gunpowder, or other proper combustible matter, prepared in the usual pyrotechnical manner of fire-works for the discharge of ordnance."

Upon these words it was first objected, that the plaintiff had failed to show any other material but common gunpowder had ever been used in the fuze, or, if introduced, would answer the purpose desired, and the first part of this objection is true in fact; but it seems to us immaterial if other materials, not specified (and it is certainly not necessary to specify all), but still within the description given, will answer the purpose; no ambiguity is occasioned—nothing that can mislead the public, or increase the difficulty hereafter of making the instrument, by the introduction of terms which import the patentee has himself used them. The latter part of the objection, if true in fact, would have been more material, because it does tend to mislead if it be stated that a whole class of substances may be used to produce a given effect, when, in fact, only one is capable of being so used successfully; but there was reasonable evidence, that other combustible substances, prepared in the manner described in the specification, would, if introduced, answer the purpose of the patent.

Colonel Pasley, a most competent witness, had no doubt one substance answering the description, namely, detonating powder, might be used; and the jury were at liberty to infer, that any similar substance, prepared as required by the description, would have the same effect. The other parts of the instrument necessarily limited the combustible substance to be used to such as are capable of being reduced to a fine powder, and introduced into a very thin continuous stream, or thread, into the centre of the fuze.

*Some know-
ledge is requi-
site in the person
reading the spe-
cification, which
is addressed to*

Some knowledge of pyrotechnics is and may probably be required in the person who is to read the specification for the purpose of making the instrument. The specification is addressed, not to persons entirely ignorant of the subject-matter,

*All the sub-
stances which
will answer
need not be
stated, if the
public are not
misled.*

*But if a whole
class of sub-
stances be
stated as suit-
able, and one of
them will not
succeed, this
will mislead.*

but to artists of competent skill in that branch of manufactures to which it relates; and such persons would be at no loss to select, if selection were at all necessary, the proper combustible material from those prepared for the discharge of ordnance for his purpose.

artists of competent skill in the particular manufacture.

But the jury probably thought, and on the evidence might well think, that the language of the specification was in this part literally true, and that no selection at all was necessary; and this brings us to the last objection, and the most relied upon, that there was a combustible substance prepared and used of the description in the specification, which would not answer the purpose, and this, if true, would be important; for then the specification would be substantially untrue, and would deceive. The substance relied on is called portfire, by the application of which to the firing of cannon it is well known that they were at one time very commonly discharged; but we think that there are two grounds on which we ought not to yield to the objection, in a case in which we see no reason to infer from the language used any fraudulent intention to mislead the public, or to make it unnecessarily difficult to understand or apply the invention. One substance, gunpowder, was the composition chiefly relied on as the most efficacious—the most obvious—the most easily procurable article for the purpose. At the same time, as, on principle, similar combustibles, prepared as fireworks are, would also have the same effect, words are introduced by the patentee, which enable him to include them, for the double purpose of making it an infringement of the patent to use them during its existence, and of directing the attention of the public to them after it had become public property. Language thus used ought not to be astutely construed, so as to overthrow a patent, yet we have a right to require the objector should at the trial make his point clear, and clearly call the attention of his opponent to it. This was not done, and we are at this moment left in doubt on the evidence what the term portfire means, whether it is the whole instrument, including both the case and combustible within, or whether it means the latter only. If the former, it is clearly out of the question, and it was certainly so understood by the plaintiffs, for they called an officer of artillery to speak of it, in order to put it at once out of the case, by showing the portfire as used in the service is a totally different thing from the safety fuze, and therefore did not interfere with its claims to novelty. The counsel for the defendant then asked a question or two as to the mode of preparing and combining the combustible within the case, from which was ascertained the fact of destroying the case as it burnt, and on this the objection was afterwards raised. What the quantity of combustible was in the portfire—whether it would have the same effect of destroying the case, if introduced

The attention of the plaintiff must be clearly directed to the nature of the objection.

into it in the very small proportion which the gunpowder in the fuze bears to the cylinder containing it, and many other matters necessary to the point, and establish the objection, were entirely passed over.

The finding of the jury on an objection to the distinctness of the specification is conclusive.

Upon the objection raised, it was proper indeed to take the opinion of the jury, but if they thought it not established satisfactorily, we see no reason to disturb their conclusion; and it may be also sustained on another ground. In one sense, undoubtedly, the portfire may be said to be used in discharging ordnance, because it ignites the priming or train, which causes the powder in the chamber of the cannon to explode; but it may be well questioned, whether the term discharging ordnance ought to be understood in that sense in this specification. The portfire, so understood, is no more than a mere match, but the fuze is used to perform the operation of a train, the fuze in it being concealed, and the case unconsumed. It could not be used in discharging ordnance in the sense portfire is used for that purpose, as the portfire, whether we mean by that term the whole instrument, case and combustible, or combustible only, has not been shown to have been used or fitted for the discharge of ordnance in any other sense.

Whether we regard the imperfect manner in which this objection was presented, or its entire failure, in fact if the specification be understood in one, and by no means an unreasonable sense, we think the jury were not unwarranted in their finding on the fourth issue, and that this rule therefore must be discharged.

Rule discharged.

ELLIOTT'S PATENT.

Title. Letters patent, 14th December, 1837, to William Elliott, for "improvements in the manufacture of covered buttons."

Specification. My invention relates to that description of covered buttons with flexible shanks which are made by the aid of dies and pressure, in contradistinction to the covered buttons made by sewing the external woven fabric on to shapes by the needle; my invention having for its object to produce buttons of a more elegant description, and of a more finished character, than have heretofore been manufactured, by the application of certain elegant fabrics not hitherto employed in the making of such buttons.

* * * * *

(a) The specification proceeds to mention some of the several modes in use, as Saunders's patent, 13th October, 1825, Aston's mode, and Aingworth's patent, 30th August, 1832, and states the

present invention to be an improvement in and applicable to those modes, but to refer particularly to the covering of the face of the button, inasmuch as, according to those, the covers of the buttons

ing described the nature of my invention, and the best *Claims.*
 I am acquainted with for performing the same, I would
 that I do not confine myself to the mode described for
 the internal parts and back of the buttons, though I
 the mode described is the best adapted for the purpose
 nvention; nor do I claim the mode described when un-
 d with a covering according to my invention; but what
 as my invention is, First, the making of covered buttons
 xible shanks by the aid of dies and pressure when the
 front of the button is made of any description of fabric
 ised surfaces producing a set pattern or ornamental
 y terry weaving for the centre of the button. Secondly,
 the making of such covered buttons with flexible shanks,
 overed with any fabric with ornamental set or central
 or patterns, produced thereon by a process called bro-
 or brocade weaving. Thirdly, I claim the application of
 gured woven fabrics to the covering of buttons (with
 shanks made by pressure in dies) as have the ground or
 of the ground woven with soft or organzine silk for the
 when such fabrics have ornamental designs or figures for
 tres of buttons, as herein described; but I do not claim
 dication of any figured patterns of woven fabrics, where
 rations constituting the covers of buttons may be cut
 iminately: this part of my invention relating only to
 atterns as require centreing, in order to bring the pattern
 mental figure or design in the centre on the face of the
 Fourthly, in the manufacture of covered buttons, with
 shanks (made in dies or such like tools with pressure), I
 he application of such description of fabrics as are pro-
 by weaving by the aid of draw wires, which when using
 called terry velvet (though woollen threads may be em-
), whether such fabrics be plain or ornamental. Fifthly,
 ention relates to the application of figured velvet, in the
 cture of covered buttons with flexible shanks made by
 e in dies, whether the ornamental weaving be such as to be
 differently over the whole surface, or in set designs for the
 of buttons. And lastly, in the manufacture of covered
 s with flexible shanks, I claim the application of the
 and instruments described in figures 2, 3, 4, 5, 6, 7, 8,
 for ensuring correctness of cutting out of the portions
 ics, in order to the pattern being in the centre thereof,

dies and pressure, cannot have marked
 site and central patterns, or be of terry
 have patterns standing much above the
 since the pressure on the face of the but-
 in the dies then in use would injure the
 Two things were essential to the success-
 ce of this mode—one, that the definite de-
 ren in the fabric out of which the covers
 be made should be accurately cut out;

the other, that the dies and tools should centre the
 pattern truly, and not press on the surface of the
 button. The specification having fully described,
 by reference to drawings, the method of attaining
 these two requisites, and given various directions
 respecting the fabrics and the manufacture of the
 buttons, proceeds as in the text. See as to inven-
 tion, Sir F. Pollock, *post*, 222.

and also the modes ensuring a central placing and holding of the fabric in the die in making the button, and also temporarily connecting the shell *h*, or internal part, with the portion of fabric, whatever be the description of fabric on which a set pattern or ornamental figure or design may be produced.

In witness, &c.

History of the manufacture. The following evidence respecting the manufacture of covered buttons was given in the course of the subsequent legal proceedings.

Mr. *Curpmæl*: "The first description of covered buttons was Saunders's Florentine button. It was made with dies and pressure; there was a plate of metal which formed the shape of the face, and there was some paper, and what was called a toothed collet, used; this collet was jagged all round, so that when forced in by the dies, the serrated or saw-like edge was caused to be clenched thereby against the internal plate, thereby holding the parts together. I never saw or heard of a

covered button previous to Mr. Elliott's patent, with a central figure made by dies and pressure; buttons with central patterns have been made before, but it has been by sewing a piece of silk or cloth over a mould. I never heard previous to Mr. Elliott's patent of any buttons made with velvet, or all over patterns made by dies or pressure."

In the subsequent legal proceedings the principal question was, as to the novelty of the application of the fabric of the soft or organzine silk. The plaintiff had a verdict, and an objection taken at the trial, that the invention is not the subject-matter of letters patent, was not moved afterwards. See *post*. See *Saunders v. Aston*, ante 75.

ELLIOTT v. ASTON.

Cor. Coltman, J. Trin. V. 1840.

Sir F. *Pollock* stated the plaintiff's case. The object of the invention is the manufacture of buttons with central patterns and with a covering, the face of the surface being in relief, or with covers of a nature which will not bear pressure on their surface without injury. The plaintiff weaves certain fabrics in strips, and covered with small patterns within squares, so that they may be readily cut out—but he lays no claim to such fabrics *per se*; the same or very similar fabrics have been used for making buttons in other ways, but they have never been used for making buttons with dies and pressure. In the manufacture of buttons with dies and pressure, as previously practised, there was no means of placing a pattern in the centre, and the surface was injured by being pressed on; the two objects, then, of the patent are, the producing with dies and pressure ornamental buttons, with devices accurately centred, and the application of certain fabrics never before applied in that manner to such purposes.

Of the novelty and utility of the invention there can be no doubt; as soon as the buttons were in the market, the demand was so great, that they could not be supplied fast enough; the natural and necessary consequences of the introduction of a new manufacture followed; buttons were applied as ornaments to a great variety of new purposes, and trade was benefitted in other directions.

The third plea denies the novelty of the invention. Now the

only safe course is to inquire when the article came into general public and extensive use; if a general public use follows on the patent, and the diffusion to the world of the article claimed, the presumption is, that the plaintiff is the inventor (a).

Several witnesses were called to prove the infringement; and the sufficiency of the specification; and the novelty of the invention; and the great demand for the buttons. After the close of the plaintiff's case,

Bompas, Serjt., for the defendant, applied that the plaintiff should be nonsuited, on the grounds, 1st. that the invention was not the subject-matter of a patent; 2dly. that if the invention was new, the specification does not describe its nature according to the terms of the objection (b). Terry velvet, and several other articles have been used to make buttons with a needle; there is nothing new in the dies and pressure; the claim to use these in conjunction, is but a claim to use a known material in a known way, viz. by dies and pressure, for a purpose known before, viz. for the purpose of making buttons; it is nothing but applying a well-known article to buttons. [*Coltman*, J.: By which plea is this raised (c)?] Under two, that the specification does not describe the nature of the invention, as explained by the objection, and that the invention is not new—which includes two things, whether it is new, and whether it is an invention. This is not an invention within the view of the patent law. [*Coltman*, J.: The evidence as it stands at present is, that by the old mode of manufacture the uniform pressure on buttons is in the centre; the novelty consists in removing the pressure from the centre to the circumference. The invention is, in substance, to make buttons in which there shall be no injury to the raised parts. The specification says, covered buttons with flexible shanks, made by the aid of dies and pressure. Terry velvet buttons could not, as the evidence now stands, without injury, be made with dies and pressure before this mode was brought forward. I shall not take the case from the jury.]

Grounds of nonsuit.

Several witnesses were called for the defendant, principally to prove the use of a similar fabric to the one claimed; the nature of the evidence will sufficiently appear from the summing up of the learned judge.

(a) See as to this in *Minter v. Wells and Hart*, per Alderson, B. *Ante* 131.

(b) The notice of objections stated, among other things, that the specification did not describe the nature of the invention, inasmuch as the heads of claim only set forth a combination of well-known inventions, not sufficient to constitute a subject-matter of letters patent.

(c) The pleas were, 1st. Not guilty. 2d. Setting forth the specification, and averring, that the plaintiff did not by the said instrument particularly

describe and ascertain the nature of the said invention; and in what manner the same was to be performed. 3d. That the said invention was not new within England.

The issue under the second plea would, on the authority of *Derome v. Fairie*, *ante* 161, appear to be, whether the specification is sufficient to describe the invention, such as has been made; and not whether the invention was the subject-matter of a patent.

COLTMAN, J.: Gentlemen of the jury: The part of the invention which is said to have been infringed is that described by the words "the application of such figured woven fabrics to the covering of buttons (with flexible shanks made by pressure in dies), as have the ground, or the face of the ground, woven with soft or organzine silk for the warp, when such fabrics have ornamented designs or figures for the centres of buttons." It appears that the buttons produced are made by pressure in dies, with flexible shanks; are you further satisfied that it is a figured woven fabric covering a button, having the ground, or the face of the ground, woven with soft or organzine silk? The witnesses for the plaintiff have expressed a decided opinion, and have not been contradicted on this point.

Specification
addressed to
persons of skill.

The second point is, whether the plaintiff has given such a description in his specification as would enable a workman of competent skill (it would not enable me, of course, to make any thing of the sort, or any person who is not a person of skill conversant with the trade) to carry the invention into effect. You have heard the evidence of Mr. Carpmael and Mr. Cottam, who state that, in their opinion, any competent workman could make the plaintiff's buttons; that has not been met by any contradictory evidence to show any obscurity that would make it unintelligible to a competent workman.

The question of
public use is for
the jury.

The third point is, whether the invention was new as to the use of it in England. It appears that Mr. Grosvenor was employed in 1837 to make silk, with ornamental figures in the centre; that about fifty-seven yards were made, and consumed on seventy gross of buttons; that a considerable number of the buttons were sold in the market; and the question is, whether the fabric so made and employed falls within the description in the patent. If it does, then the goods which are manufactured are goods which the plaintiff attempts by this patent to prohibit the party from making; and his patent would, therefore, if you thought these goods had been put in use publicly in England, (of which the circumstance of selling them in the way described, is a matter you are to consider, whether that shows a public use of them or not,) be too large in its claims, and consequently invalid.

The questions then, are, whether you are satisfied that there has been an invasion of the patent; that the specification is sufficiently clear for an intelligent person conversant with the subject to understand the mode of working; and whether you are of opinion that the manufacture was a new manufacture in England; or whether, on the contrary, that a certain part of it was known, and in public use before?

Verdict for the plaintiff.

HILL'S PATENT.

Letters patent, 28th July, 1814, to Anthony Hill, "for the *Title.*
invention of certain improvements in the smelting and working
of iron."

I, the said Anthony Hill, do hereby declare that the nature of *Specification.*

my said invention, and manner of performing the same, are fully
described and ascertained in manner following; that is to say:

my said improvements do consist in the manipulations, pro- *Invention con-*
cesses, and means, hereinafter described and set forth, and by *sists in render-*
which the iron contained in the several sorts of slags or cinders, *ing available the*
produced in, or obtained from, the refinery furnace, the puddling *iron contained*
furnace, and the balling or reheating furnace, and which are *in the slags or*
produced in consequence of, or by, or during, the operation of *cinders pro-*
rolling, or by any treatment to which the crude or pig iron of *duced in the*
the blast furnace may be or is usually subjected, in order to *manufacture of*
improve or alter the quality of the same, is by smelting or *iron.*
working made into, or brought into the state of, bar iron; whe-
ther only one of the said several sorts of slags or cinders be
used, or whether all the said sorts of the said slags or cinders,
or any of the said several sorts of them be mixed together and
used; or whether all the said sorts of the said slags or cinders,
or any one or more of the said sorts of them be compounded
with iron stones or iron ores, or with both of them; whether all
the said several compounds be used together, or whether only
one of the several sorts of crude or pig iron, obtained from the
said slags or cinders, or the aforesaid mixtures of them, be used;
or whether all or any of the said several sorts of crude or pig
iron be mixed or used together, or whether they, or any one
or more of them, be mixed with any one or more sort or sorts
of any other crude or pig iron, and used; or whether only one
of the several sorts of crude or pig iron, obtained from all, or
any, or either of the said compounds of the said slags or cinders,
with iron stones or ores, be used; or whether all or any of the
said last-mentioned several sorts of crude or pig iron be mixed
and used together; or whether they, or any one or more of
them, be mixed with any one or more sort or sorts of any other
crude or pig iron, and used; or whether all, or any, or either of
the aforesaid sorts of crude or pig iron be compounded and
used with refined metal obtained from the said slags or cinders,
or from the said mixtures thereof, or from the said compounds
of the said slags or cinders with iron stones and ores, or with
the refined metal of any other iron; or whether only one of the
several sorts of refined metal obtained from the said slags or
cinders, or from the said mixtures thereof, or from the said last-
mentioned compounds, be used; or whether all or any of the

Specification.
A.D. 1815.

said last-mentioned refined metals be mixed and used together; or whether they, or any one or more of them, be mixed with any one or more sort or sorts of refined metal of any other iron, and used; or whether only one of the several sorts of puddled iron, obtained from the said slags or cinders, or from the said mixtures thereof, or from the said last-mentioned compounds, be used; or whether all or any of the said last-mentioned puddled irons be mixed and used together; or whether they, or any one or more of them, be mixed with any one or more sort or sorts of any other puddled iron, and used

Also, in the use and application of lime to iron, subsequent to the blast furnace, in order to prevent the "cold short."

And that my said improvements do further consist in the use and application of lime to iron, subsequently to the operation of the blast furnace, whereby that quality in iron from which the iron is called "cold short," howsoever and from whatever substance such iron be obtained, is sufficiently prevented or remedied, and by which such iron is rendered more tough when cold. And I do further declare, that in the said smelting and working, I do use a mixture of lime or limestone, and of the substance in which the iron stones are generally found, and which is known in South Wales by the name of mine rubbish whether raw or calcined, consisting, by weight, of about six parts of good limestone to five parts of raw mine rubbish, and the said mixture I do apply, together with the other material operated upon in the blast furnace, for the purpose of producing a fusible cinder, and that the proportions of the said limestone and mine rubbish, composing the said mixture, may be varied, without materially impairing the beneficial effects thereof. And that in smelting and working, by the usual working of the blast furnace, all, or any, or either of the said sorts of the said slags or cinders, or the aforesaid mixtures of them, or all, or any, or either of the said compounds thereof, with iron stones or ores, when such slags or cinders, or compounds last-mentioned, are known by assay, or otherwise, to be capable of affording crude or pig iron to the amount of fifty per cent., or thereabouts, by weight, I do, in order to make one charge, take and use 18 cubic feet by measure, or about 450 pounds by weight, of coke, and from 300 pounds to 420 pounds of the said slags or cinders, or the said last-mentioned mixtures and compounds, and from 70 pounds to 95 pounds of the said raw mine rubbish, and from 180 pounds to 240 pounds of the said limestones, or from 110 pounds to 145 pounds of lime, which charge I do repeat according to the usual manner of filling and working the blast furnace. But that, when the said slags or cinders, or the last-mentioned mixtures or compounds, which are known by assay or otherwise to contain respectively either more or less than fifty per cent., by weight, of crude or pig iron, are required to be smelted and worked by the usual working of the blast furnace, it will be necessary, in order to produce the best effect,

that the quantity and proportions thereof, and of the limestone and raw mine rubbish to be made use of in the charge as aforesaid, should be varied; and that, as a general rule of practice to be adopted and followed, I do declare that I do mix all, or any, or either of the said sorts of the said slags or cinders with raw mine rubbish, if required, or I do mix all, or any, or either of the said last-mentioned compounds with raw mine rubbish, if required, until the crude or pig iron contained in either of such aggregate mixtures shall amount to forty per cent., or less than forty per cent., if so wished; and then, in order to constitute a charge, I do take from either or both of such aggregate mixtures from 350 pounds to 550 pounds in the whole, and 18 cubic feet, by measure, or about 450 pounds, by weight, of coke; and I do flux the whole, by adding six parts, by weight, of limestone, for every five of such parts of the raw mine rubbish as may have been used for the purpose last before-mentioned; and I do add so much more lime or limestone, as may be known by assay or otherwise to be required to produce a fusible cinder. And further, that it will be advisable to reduce the said slags, or the said mixtures of the said slags or cinders, or the said compounds of the said slags or cinders with the said iron stones and ores, and the limestone and raw mine rubbish aforesaid, previous to their being put into the blast furnace, to about the size at which materials are commonly used in the blast furnace. And further, I do draw off from the blast furnace the crude or pig iron afforded by the said slags or cinders, or by the said last-mentioned mixtures or compounds. And I do make the several sorts of crude or pig iron, obtained from the said slags or cinders, or from the said last-mentioned mixtures or compounds, into bar iron, by puddling, reheating, and rolling, compressing, or hammering; or by refining, puddling, reheating, and rolling, compressing, or hammering, whether only one of the said several sorts of crude or pig iron be used, or whether all or any of the said several sorts of crude or pig iron be mixed and used together, or whether they, or any one or more, be mixed with any one or more sort or sorts of any other crude or pig iron, and used; or whether all, or any, or either of the aforesaid sorts of crude or pig iron be compounded and used with refined metal, obtained from the said slags or cinders, with iron stones or ores, or with the refined metal of any other iron, and used; or whether only one of the several sorts of refined metal obtained from the said slags or cinders, or from the said mixtures thereof, or from the said last-mentioned compounds, be used; or whether all or any of the said last-mentioned refined metals be mixed and used together; or whether they, or any one or more of them, be mixed with any one or more sort or sorts of refined metal from any other iron, and used; or whether only one of the several sorts of

Specification.
A.D. 1815.

Specification.
A.D. 1815.

Also, in the discovery that lime will prevent the quality of "cold short."

puddled iron, obtained from the said slags or cinders, or from the said mixtures thereof, or from the said last-mentioned compounds, be used; or whether all or any of the said last-mentioned puddled iron be mixed and used together; or whether they, or any one or more of them, be mixed with any one or more sort or sorts of any other puddled iron, and used.

And I do further declare, that I have discovered that the addition of lime or limestone, or other substances consisting chiefly of lime, and free or nearly free from any ingredient known to be hurtful to the quality of iron, will sufficiently prevent or remedy that quality in iron, from which the iron is called "cold short," and will render such iron more tough when cold; and I do, for this purpose, if the iron, howsoever and from whatever substance the same may have been obtained, be expected to prove "cold short," add a portion of lime or limestone, or of the other said substances, of which the quantity must be regulated by the quality of the iron to be operated upon, and by the quality of the iron wished to be produced; and further, that the said lime or limestone, or other aforesaid substances, may be added to the iron at any time subsequently to the reduction thereof, in the blast furnace, and prior to the iron becoming clotted, or coming into nature, whether the same be added to the iron while it is in the refining or in the puddling furnace, or in both of them, or previous to the said iron being put into either of the said furnaces. And further, that I do, in preference, add quick-lime instead of limestone, or the said other substances (either of which, as to quantity, whensoever and howsoever so used, may be considerably varied), to the iron in the refinery furnace, and in the puddling furnace. And I do further declare, that I do greatly prefer to mix or add, in the refinery furnace, about from one-fourth to one-third, by weight, of the crude or pig iron which has been obtained from the slags or cinders, with three-fourths or two-thirds of the crude or pig iron which has been obtained from the iron stones. And I do further declare, that, for the operation in the refinery furnace, I do add the lime as it is obtained from the kiln, in the proportion of one-sixtieth to one-fortieth part, by weight, of the whole weight of the crude or pig iron intended to be worked in the furnace; and I do apply about one-half of the said lime, together with the crude or pig iron, as it is thrown upon the refinery fire, and the remainder from time to time during the course of the refinery operation, taking care not to suffer the slag or cinder which is produced to get too thick, nor to endanger the stopping up of the furnace: and I do also declare, that in the puddling furnace I further add lime in the proportion of from one-hundredth part to one-eightieth part, by weight, of the whole weight of iron in the furnace, which lime I previously slake and wet to prevent

carried off by the draught of the furnace; and I do apply *Specification*.
 in the course of that part of the operation, which A.D. 1815.
 to workmen by the term of "drying the iron;"
 moreover, I take care that the same shall be intimately
 and minutely dispersed through the iron by the usual
 process of puddling.

In witness, &c.

subsequent legal proceedings on this extremely doubtful whether any invention existed in this case, which could be new. That the invention professed in the specification, whether in the legal sense of a discovery, or in the sense of an improvement only, is the subject of letters patent, is never doubted, contrary assumed throughout the judgment of the Court of Common Pleas dictum of Lord Eldon, *post* 237, in *ga* before him, "that there may be a new combination of materials for the same purpose, or for a new mode of applying such materials; but the invention must clearly express, that it is such new combination or application recognised and acted on by all the time to the present.

of the class of the preceding are signified by the term 'chemical'; but appear to be more appropriately defined by use and application of a known specific purpose; which general in practice limited and defined by of novelty, which is essential to, and the term invention. The substance old and well known; the manner in used and applied also old and well specific result or purpose, old and the novelty or invention will then simple use and application of that of this class are, Dudley's, for the use of coal, instead of charcoal, in the machine, *ante* 14; Mansell's, for the use of wood, in the manufacture of paper; Hall's, for the use of gas in singeing; Derosne's, for the use of char-

coal in filtering sugar, *ante* 152; Crane's, for the use of anthracite in the manufacture of iron with hot blast, instead of other coal or coke, *post*; to all which inventions the words of the judgment by the Court of Common Pleas in the case of *Crane v. Price & Others* are applicable, namely, that "if the result produced was either a new article, or a better article, or a cheaper article, to the public, than that produced before, it might well become the subject of a patent." *Post*. The following patents also belong to the same class: Hartley's, for the use of iron plates to prevent fire, *ante* 54; Forsyth's, for the application of detonating powder in the discharge of fire-arms, &c. *ante* 96; Neilson's, for the hot blast, *post*; but the same test of validity does not so directly apply. Buck's, for melting down iron and other metals with stone coal and other coals, without charking, *ante* 35, may also be mentioned in this class. In none of these is any particular and precise proportions of parts, or method of operating, of the essence of the invention; some proportions must always exist, and must generally be given, and some means or method of carrying the invention into practice must always be described; but there is a marked distinction between the above class of cases, and that in which the invention, in the words of Lord Eldon, is a new combination of materials, previously in use, for the same purpose. To this latter class Hill's invention (if any) would belong; the patent medicines; most paints and cements; all instruments and machines, and other combinations and arrangements of parts already existing.

The above specification furnishes an instructive example of the kind of defects which frequently occur in the specifications of inventions of the class to which it more peculiarly belongs.

HILL v. THOMPSON AND FORMAN.

Cor. Lord Eldon, L.C., 24th April, 1817.

[3 Mer. 622.]

I prayed an injunction to restrain the defendants "from in any manner disposing of, any iron smelted and otherwise produced by them, or by any person or on their behalf, by the means or use of the plain-entention and improvements (in the bill mentioned), and slag slugs or cinders, and mine rubbish, and lime, ac-

cording to the plaintiff's said invention and improvements; and from in any manner using the said invention and improvements in the smelting and working of iron, and from otherwise infringing the plaintiff's patent, in the bill also mentioned."

The affidavits in support of the injunction (which was moved for and obtained upon the filing of the bill, until answer or further order) stated the letters patent, dated the 26th of July, 1814, for the plaintiff's invention, which was alleged to consist in the use and application of the slags or cinders thrown off by the operation of smelting (which had previously been considered as useless) to the production of good and serviceable metal, by the admixture of mine rubbish and otherwise, according to principles of the plaintiff's own discovering.

Motion to dissolve injunction.

The defendants moved, on the coming in of their answer, to dissolve the injunction; and upon this occasion a variety of affidavits were produced on both sides, tending respectively to impeach and to assert the validity of the patent, and of the injunction to restrain the breach of it. An affidavit made by the plaintiff referred to the specification of his invention, lodged in the patent office, alleging that he verily believed he was the inventor of the several improvements in smelting and working iron, which were therein mentioned; and the specification referred to contained an explanation of the principles of the alleged invention, which was extremely diffuse, and objected to on the other side as either wholly unintelligible, or so confused and intricate, as not to be capable of being reduced to practice. It was further objected, that except by reference to this obscure specification, neither the plaintiff nor any of his witnesses had stated in what the alleged invention and improvements consisted, nor whether he claimed in respect of invention, or of improvements merely; and that a patent, to be good, must not be more extensive than the invention. The defendants' affidavits also went to deny the originality of the invention altogether. *R. v. Else (a)*, *Boulton v. Bull (b)*, *Hornblower v. Boulton (c)*, and *Harmer v. Playne (d)*, were cited on the part of the plaintiff in answer to the objection to the specification.

The case was argued on several occasions and at considerable length, by

Sir S. Romilly, Bell, and Phillimore, for the defendants, in support of the motion to dissolve the injunction; Trower, Wetherell, and Raithby, contra.

On motion for an injunction, the affidavits should state the alleged invention with particularity.

Lord ELDON, L.C., said, he doubted whether the injunction ought to have been granted in the first instance, unless the affidavits had stated more particularly in what the alleged infringement of the patent consisted; and that it should have

(a) *Anie* 76. (b) 2 H. Bl. 463. (c) 8 T. R. 95. (d) 14 Ves. Jun. 130.

shown to be by working in the precise proportions mentioned in the specification, as being of the essence of the invention.

That when, in future, an injunction is applied for *ex parte* on application *ex parte* for an injunction, the affidavits must state the party's belief at that time that he was the true and first inventor. on the ground of violation of a right to an invention secured by it, it must be understood, that it is incumbent on the party making the application to swear, at the time of making it, as to belief that he is the original inventor; for although when he obtained his patent he might very honestly have sworn as to belief of such being the fact, yet circumstances may have frequently intervened, or information been communicated, sufficient to convince him that it was not his own original invention, and that he was under a mistake when he made his present declaration to that effect.

The principle upon which the court acts in cases of this description is the following: Where a patent has been granted, and an exclusive possession of some duration under it, the court will interpose its injunction, without putting the party to the necessity of establishing the validity of his patent by an action at law. But where the patent is but of yesterday, and, upon an application being made for an injunction, it is endeavoured to obtain one in opposition to it, that there is no good specification, or otherwise that the patent ought not to have been granted, the court will not, from its own notions respecting the matter in dispute, act upon the presumed validity or invalidity of the patent, but will send the patentee to law, and oblige him to establish the validity of his patent in a court of law, before it will grant him the benefit of an injunction.

In the present case, I shall say nothing as to my opinion of the validity or invalidity of the patent. The affidavits in support of the injunction represent that the defendants have infringed the patent in the way mentioned in the specification. But whether it is to be considered as a patent for extracting iron from slags or cinders, by working and smelting, and by the mixture of certain materials to reduce the percentage to forty per cent., or for mixing cinders, limestone, and mine rubbish, in certain proportions, it should, before any injunction was granted, have been pointed out that the patent was actually infringed by so mixing the ingredients, or so reducing the percentage. Here I cannot but entertain a doubt, whether the infringement as to the lime destroying the "cold short" is, or is not, a new invention, but that is not for me to decide; and if, at the trial of an action, the witnesses should prove the use of the same materials for the same purpose previously to the grant of this patent, another question will remain, admitting that a patent may be good for a mere method of producing a more beneficial and useful result, from the adhibition of the same materials.

But it is enough in the present case to resort to the principle

The grant of letters patent, and exclusive possession of some duration under them, is a ground for injunction without previous trial at law; *aliter* if the patent be of yesterday, and the validity of the patent be denied.

Before injunction is granted, the nature of the infringement must be stated with particularity.

already laid down, and which is the same that governed the cases which have been cited—of *Harmer v. Playne* (e), and *Boulton v. Bull* (f)—because it cannot be said that there has been in this case such a possession or enjoyment under the patent as would induce the court to continue the injunction upon such evidence as is here afforded, until its validity has been tried at law. Here the patent bears date July, 1814, and the specification, January, 1815; and it appears by the affidavits, that the works were not completed so as to carry on the operations under the patent until July, 1816.

Injunction dissolved.

His Lordship accordingly dissolved the injunction; but directed that an account should be kept of slags used and iron made by the defendants, according to the method described in the specification, the plaintiff undertaking to bring an action; with liberty to apply to have the injunction revived after trial of the action, or in case of any unreasonable delay being interposed on the part of the defendants.

HILL v. THOMPSON AND FORMAN.

Cor. Dallas, J. Mich. Vac. 1817.

[Holt, N. P. C. 636; 2 B. Moore, 429; 8 Taun. 382.]

Trial at law.

In this action for infringing the plaintiff's patent, and brought in pursuance of the order in the preceding case, the following evidence was adduced:—

Plaintiff's evidence as to the utility, novelty, and success of the invention.

For the plaintiff it was sworn, by his clerk, that bar iron, uniformly approved of, had been manufactured from slags, according to the specification, in considerable quantities; that, previously to the patent, heaps of slags had been either lying as useless, or had been thrown away as refuse, at iron manufactories, attempts having been made to convert them to advantage, and having uniformly failed; that mine rubbish (the *matrix* of the iron stones) had never before been mingled with slags for the purpose of producing bar iron; that in order to prevent the state of bar iron called "cold short," the lime, &c., had been used in the proportions specified, though those proportions had been sometimes a little varied; but that the proportions specified were essential to the most successful result; and that the exact proportion of cinders or slags, and iron stone, specified, had not invariably been attended to in working under the patent.

(e) 14 Ves. Jun. 136.

(f) 3 Ves. Jun. 140.

Three other witnesses, who had been acquainted with the manufacturing of iron from twenty to thirty years, corroborated clerk as to the uselessness and rejection of slags before the patent, and proved their ignorance that lime was ever before used in the processes of puddling and refining for the prevention of the state of "cold short," and the novelty to them of the specified modes for converting the slags into bar iron, and preventing the state of "cold short;" and David Mushet, who had invented iron manufactories for twenty-five years, and had patented and written on the subject, corroborated the witnesses as to the former uselessness of slags, and gave his opinion, that if the same were applied, as directed in the specification, it would be an effectual prevention of the state of "cold short," and that the application, as specified, was entirely new, and the specification perfectly intelligible; observing, that the plaintiff's invention consisted, not in the discovery of new ingredients or new principles, but in a combination of ingredients and principles never existing so combined before.

To prove the infringement, Edward Forman, the son of one of the defendants, and the superintendent of their works, was called, and stated, that he had seen the plaintiff's specification; that since the date of the patent, the defendants preserved the processes, which they had not done before, and produced pig iron, mixing them with mine rubbish; and that in the subsequent processes they applied quick-lime, to prevent the iron from going "cold short." But he stated, that the defendants did not conform by the plaintiff's specification, but used very different proportions, viz. lime in the refinery furnace in about the proportion of a one-hundred-and-twentieth part to the whole weight of pig iron, and that they used none in the puddling process, and that the defendants had used slags in the puddling process for years before the date of the patent. He also proved, that the proportions of mine rubbish, as laid down in the specification, were not essential to the success of the process; that the defendants had been in the habit of varying those proportions, and that they once entirely omitted mine rubbish, when the result was most successful.

For the defendants it was proved, that at Bradley Iron Works, Staffordshire, more than forty years ago (iron stone at that time running short), slags and mine rubbish were collected and crushed, and used in the blast furnace, and that coke, mine rubbish, Lancashire or Cumberland ore, limestone, and puffed iron, were used to convert the slags into pig iron, which, after several processes, was converted into good bar iron. It was also proved that, at Benthall Iron Works, in Staffordshire, as far back as the year 1788, the slags from the refinery furnace, together with coke, iron stone, limestone, and poor robin, were used in the blast furnace for the production of pig iron, which

As to the infringement.

Defendants' evidence.

was afterwards converted into good bar iron; and that at Bingley, in Staffordshire, many years ago, slags had been used in the same way, and with the same results.

A witness, named Northall, proved that slags had been used at Millfield Works, in Staffordshire, together with coke, iron stone, and lime, in the blast furnace, in 1803, and that he then knew how to correct the state of "cold short" in iron produced from the slags, by the application of lime, in the puddling furnace, and that these works were, in consequence, without a forge, which would otherwise have been necessary to prevent the iron from being "cold short." Thomas Robinson, a manager of Ketley Works, Staffordshire, from 1803 to 1816, produced a journal of experiments, commenced by him at those works in 1807, with a view to the prevention of "cold short." At that time limestone was there used in the refinery furnace, not with the view of curing the "cold short," but the use of it was found to make the iron more tough. He used limestone in the refinery furnace to black hard pig iron (which generally affords a slag in the refinery furnace inferior to that afforded by other pig iron, and generally produces "cold short" iron), and the limestone made the slags from these pigs as good as the slag produced from good pig iron, without the aid of limestone.

From 1807 to 1809 he used quick-lime, and afterwards, up to 1816, lime wash upon coke, in the proportion of about 20 pounds of lime to 10 cwt. of pig iron. This made the iron, which would otherwise have been "cold short," tough. He tried lime in the puddling furnace, in order to obtain the same advantage, and he obtained the advantage, though the apparatus was spoiled; but he would have continued to use limestone in the puddling furnace had he not preferred its use in the refinery furnace. He did not treat iron obtained from slags with lime according to that process, but used another.

For the defendants it was urged, that there was no novelty in the alleged invention, and that the mere regulation of principles before known and practised, was insufficient to support the patent, which was too general; that the specification was equivocal and ambiguous, and that the plaintiff had taken out his patent for too much, and had not even confined himself to the particular proportions of the various ingredients, the proportioned combination of which alone constituted his alleged discovery.

DALLAS, J.: Left it to the jury to say, whether the plaintiff had made out the novelty of the invention or improvement for which the patent was taken out; namely, the conversion of slags into good bar iron, and the prevention of the quality called "cold short," by the application of lime.

Verdict for the plaintiff.

HILL v. THOMPSON AND FORMAN.

Cor. Lord Eldon, L. C.

[3 Mer. 626.]

Dec. 15, 1817.

Plaintiff having obtained a verdict, now moved to revive Motion to re-
vive the injunc-
tion. action. In support of the motion it was represented to
 the court settled as law, that there may be sufficient novelty to
 support an injunction, as well in a mere improvement upon an
 old, as in an original invention. The verdict of the
 jury also stated to be conclusive as to the matter of fact,
 and application now made as of course, and such as the
 court would not refuse, without taking upon itself to meddle
 with what was the exclusive province of a court of law.
 On the other hand, it was stated to be the intention of the
 court to move for a new trial at law, which could not be
 done before the next term, but that the motion would then
 be made, and with every prospect of success, on the
 ground of the verdict being pronounced against evidence, it
 been clearly proved on the trial, that previously to the
 grant of this patent, iron had been extracted from slags or
 by precisely the same process as that described in the
 patent. That the trial was at *nisi prius*, where little op-
 portunity is afforded for that consideration on the part of the
 court, which, in such a case as the present, was necessary to
 enable the court properly to direct a jury. That the order, giving
 to the plaintiff to apply to the court to revive the in-
 junction, left it at the discretion of the court to grant or to
 refuse the application; and that, in the present case, its being
 refused would be attended with the greatest inconvenience and
 to the parties, in case by the event of a new trial they
 were found to have a right to continue the works which
 had been commenced by them, in consequence of the patent
 having been pronounced to be invalid. That the verdict
 should not be considered as in any respect final or com-
 plete, until it were known whether it should stand or abide the
 result of the new trial. That in the direction of the judge to
 the jury, it was expressly stated that the patent was for the
 discovery of certain improvements in the smelting and working
 of iron obtained from slags or cinders, and it, therefore, was a
 matter to be proved if the contrary were insisted on, that
 nothing had never been effectually accomplished before,
 there was abundance of evidence, that the very same
 process had been habitually practised in Staffordshire and Shrop-
 shire, though it might be true that it had not been resorted to
 in Wales, where the works in question were situated.

To all this it was replied, that the injunction must be revived as a matter of course, the verdict having been obtained, and that to oppose it was, in effect, no other than to apply for a new trial to a court incompetent to award it. That in the opinion of the judge who directed the verdict, it was clearly a patent for an improvement, and not for an original invention, and that the verdict pronounced agreeably to that direction gave a *prima facie* right to the plaintiff, upon which the court could not refuse to act.

Lord ELDON, L.C.: In this case, the injunction was first granted upon the strength of affidavits, which were contradicted, as to their general effect, in the most material points, when it afterwards came before the court upon a motion to dissolve the injunction so obtained. Many topics were then urged on both

If a person has had exclusive enjoyment, the court will give credit to the apparent right and restrain its violation; but if doubts be entertained as to the validity of the patent, the injunction will be granted only on terms.

sides, and fully discussed in argument. It was insisted on the part of the plaintiff, and the court agreed to that position, that where a person has obtained a patent, and had an exclusive enjoyment under it, the court will give so much credit to his apparent right as to interpose immediately by injunction to restrain the invasion of it, and continue that interposition until the apparent right has been displaced (g). On the other hand, it was with equal truth stated, that, if a person takes out a patent as for an invention, and is unable to support it, except upon the ground of some alleged improvement in the mode of applying that which was previously in use, and it so becomes a serious question both in point of law and of fact, whether the patent is not altogether invalid,—then, upon an application to this court for what may be called the extra relief which it affords on a clear *prima facie* case, the court will use its discretion; and if it sees sufficient ground of doubt, will either dissolve the injunction absolutely, or direct an issue, or direct the party applying to bring his action; after the trial of which, either he may apply to revive, if successful, or else the other party may come before the court, and say, I have displaced all his pretensions, and am entitled to have my costs and the expenses I have sustained, by being brought here upon an allegation of right which cannot be supported. And, as in this instance, the court will sometimes add to its more general directions, that the party against whom the application is made shall keep an account pending the discontinuance of the injunction, in order that, if it shall finally turn out that the plaintiff has a right to the protection he seeks, amends may be made for the injury occasioned by the resistance to his just demands.

(g) The preceding is a distinct authority to show that the court may grant an injunction *simpliciter*, or absolutely, without imposing any terms on the patentee, and leave the other party to impugn the patent, or repeal it by *scire facias*; it is

not, however, usual to grant such an injunction, but the patentee is generally compelled to bring an action to try his right. See *per* Lord Langdale, M. R. in *Saunders v. Tindal*, post.

directions to the jury, the judge has stated it as the subject of patents—first, that the invention must be new; secondly, that it must be useful; and thirdly, that the invention must be intelligible. I will go farther, and say, that not only must the invention be novel and useful, and the specification intelligible, but also that the specification must attempt to cover more than that which, being both of actual discovery, and of useful discovery, is the proper subject for the protection of a patent. And I am compelled to add, that if a patentee seeks by his specification any more than he is strictly entitled to, his patent is rendered ineffectual, even to the extent to which he is otherwise fairly entitled. On the other hand, there is no valid patent for a new combination of materials previously in use for the same purpose, or for a new method of using such materials. But, in order to its being effectual, the specification must clearly express that it is in respect of a new combination or application, and of that only, and not in relation to the merit of original invention in the use of the materials. If there be a patent both for a machine and for an improvement in the use of it, and it cannot be supported for the machine, although it might for the improvement merely, it is worthless for nothing altogether, on account of its attempting to do too much.

It is contended, that what is claimed by the present patent is not a novel invention; that the extraction of iron from cinders was previously known and practised; that the lime in obstructing "cold short" was likewise known. To all this it is answered, that the patent is not for the invention of these things, but for such an application of them as is described in the specification. Now, the utility of the discovery, the intelligibility of the description, &c., are all of them matters proper for a jury. But whether or not the patent is defective in attempting to cover too much, is a question of law, and such to be considered, in all ways that it is convenient to the purposes of justice that it should be considered (*h*). The specification generally describes the patent to be "for improvements in the smelting and working of iron;" and it then

To establish the validity of a patent, the invention must be both new and useful, and the specification must accurately describe it.

Also, if the specification seeks to cover more than is actually new and useful, it vitiates the patent, rendering it ineffectual even to the extent to which it might otherwise have been supported.

The utility of the invention, and the intelligibility of the specification, are for the jury; but the nature and extent of the claim, for the court.

The distinction here pointed out, as to the questions which belong to the jury and court respectively, is of great importance to be observed. In the case of *Neilson v. Harford* it was argued, in the opinion of Lord Eldon, the jury judge of the meaning and construction of the particular sentence in the specification, the sense containing neither terms of art requiring explanation, nor words, the meaning of which, in the context, was the least doubtful; that the expression "intelligibility of the invention," as a question for the jury, was

co-extensive and synonymous with the expression, "meaning of the specification." But the Court of Exchequer held that these were essentially distinct; that the meaning of the specification was for the court, and that the court were to tell the jury what the specification had said, the interpretation of terms of art being left to the determination of the jury, according to the evidence; that the jury were to determine whether that which the specification says, is a sufficient description. See *post*.

goes on to describe the particulars in which the alleged inventions consist, describing various proportions in the composition of the materials, and various processes in the adhibition thereof. The question of law, upon the whole matter, is, whether a specification by which the patentee claims the benefit of an actual discovery of lime as a preventive of "cold shattering" is so well satisfied with respect to it as to take it for granted that no argument can prevail upon a court of law, to cause the first question be reconsidered, by granting the motion for a new trial. If this be a question of law, I can have no right to ever to take its decision out of the jurisdiction of a court of law, unless I am convinced that a court of law must consider the verdict of the jury as final and conclusive.

The injunction having been dissolved, the plaintiff to bring an action to establish his patent right, and the defendants to keep an account in the mean while; a verdict having been obtained for the plaintiff on the trial of the action, on application being made to revive the injunction, it was objected that the defendants intended to move for a new trial; and the matter was ordered to stand over till the result of that application should be known; the parties continuing to keep an account in the interim.

this only brings it back to the original question; as enough of difficulty and uncertainty in the specification enough of apparent repugnance between the specification and the patent itself, to say that it is impossible I can arrive at a conclusion respecting it as to be satisfied that there is no ground for granting a new trial. In the order I formerly pronounced was contained a direction, that the defendants keep an account of iron produced by their working in the manner described in the injunction. If the injunction is to be revived, the whole of their establishment must be discontinued between this and the fourth day of next term, when I intended to move for a new trial, the result of which is that the defendants have a right to continue the works in the mean time, which, they will then be under the necessity of recommencing all their operations, and making all their preparatory arrangements *de novo*. It appears to me that this would be a much greater inconvenience than any that can result from a refusal in the present instance to revive the injunction (if my opinion, therefore, is, that this matter must stand over till the fifth day of next term, when I may be informed of the result of the intended application for a new trial; the account to be kept in the mean time as before.

Ordered accordingly.

(i) This principle was acted on by Lord Cottenham, L.C., in the recent case of Neilson's patent, *post*. It appeared that the defendants would sustain irreparable damage if their works were stopped by injunction; an account, consequently, was ordered, until the validity of the patent could

be tried. But in other cases, where the balance of convenience would not result, the parties have been strained absolutely. See *Bickford v. St. 214*, *Soames v. Tindal*, *post*, the plaintiff on the terms of bringing an action.

HILL v. THOMPSON AND FORMAN.

In the Common Pleas, Trin. T., 1818.

[8 Taun. 382; 2 B. Moore, 433.]

Sergt., in Hilary Term last, obtained a rule *nisi* to set the *Rule nisi for*
 aside (*k*), and to enter a nonsuit, or have a new trial; *nonsuit.*

the grounds urged at the trial; secondly, because the
 was against evidence, inasmuch as it had been proved
 he had been applied to the prevention of the quality
 'cold short,' and that good bar iron had been produced
 ages and mine rubbish long before the patent; and he
 passage from 'Aikin's Chemical and Mineralogical Dic-
 (1), to show that the application of lime for the cure of
 lity called "cold short" was notorious at a much earlier

court granted the rule principally on the question, whe-
 s was substantially a patent for a discovery, or an improve-
 and thought that, as to that part of it that applied to
 rial, there was sufficient complication in the case to have
 ssed, without saying whether the verdict of the jury was
 : wrong; and were further of opinion, that the work of
 in should be considered as having been made use of at
 l, both parties having referred to it (*m*).

he last term, *Best* and *Copley*, Sergts., showed cause
 the rule, which was then supported by *Lens*, *Vaughan*,
 ll, Sergts.

stance of the arguments in showing cause.—Although the *Argument*
 les on which the patent was founded might have been *against rule.*
 usly known, and although the various articles specified
 have been previously used, yet the combination of those
 les, and the use of those articles in certain propor-
 n a new series of processes, leading to and terminating in
 ficial result, will support the novelty of invention claimed
 patent: the novelty of such combination and propor-
 and the successful result of them, have not been contro-
 . The patent has not been taken out for too much, nor
 he specification embrace more than the patentee is en-
 o by his patent. Neither is the specification equivocal
 ibiguous. It is not necessary that every information on
 : subject as that with which this patent is conversant

note 234.

Risner says, That cast iron, which by
 mon treatment would yield 'cold short'
 be made to afford soft malleable iron, by
 : with a mixture of equal parts of lime
 ria." Vol. 1, 610. col. 1.
 his book, referred to by *Dallas*, J., in sum-

ming up, had not been given in evidence; but as it
 lay open on the table at the trial, and had been
 then referred to by both parties, *Park*, J., suggested
 that it could not be now objected that it had not
 been correctly mentioned by the judge in his
 summing up; and in this suggestion the counsel
 on both sides acquiesced.

should be given by the specification. In such cases, general knowledge must be resorted to, and the party must carry a reasonable knowledge of the subject-matter with him to the perusal of the specification. Neither is it necessary that the processes or articles in such a case as this should be individually new. It is no objection to mechanical or chemical discoveries that the articles of which they are composed were known, and were in use before, provided the compound article, which is the object of the invention, be new (*m*): for it is settled law, that the new combination of old materials may be the subject of a patent (*n*). The passage cited from Aikin only shows a previous knowledge of a mode of preventing the quality called "cold short," by fusing cast iron with equal parts of lime and scorix: the plaintiff claims the improvement of preventing it by the application of lime only. Robinson's evidence does not support the plaintiff's case. He made a mere series of private experiments, and if he made any discovery, he never made such discovery public. The answer of *Buller, J.*, upon the objection raised to Dollond's patent, for the invention of achromatic telescopes, (which objection was, that Dollond was not the inventor of the new method of making the object glasses, but that Dr. Hall had made the same discovery before him,) applied to Robinson's experiments in this case. *Buller, J.*, in the case of *Boulton v. Bull*, observed upon that objection, that as Dr. Hall had confined the discovery to his closet, and the public were not acquainted with it, Dollond was holden to be the inventor (*o*). To make Robinson's experiments (even if they had been applied to the manufacture of iron from slags, which was not the case) destructive of the plaintiff's patent, they should have been communicated to workmen, and brought into efficient use in the manufactory. [*Dallas, J.*: If a person had done precisely all that is specified to be done in this specification, to prevent "cold short" in iron, and had not communicated it to any one, could he be prohibited by the patent from doing that which he had done before, though known to no one but himself, or could it be considered as new if practised by only one person, but not communicated to the world?] Such a previous use of an alleged discovery would, as it did in Tennant's case (*p*), have gone far to destroy the patentee's rights. But here there had been no such use, and the verdict of the jury ratified the patentee's right to the invention which he had claimed.

Substance of arguments in support of the rule.—The patent

Will a subsequent patent restrain prior private user?

(*m*) "Mechanical and chemical discoveries all come within the description of manufactures; and it is no objection to either of them, that the articles of which they are composed were known and were in use before, provided the compound article, which is the object of the invention, is new." *Per Buller, J.*, 2 H. Bl. 487.

(*n*) *Per Lord Ellenborough, C. J.*, in *Huddell v. Grimshaw*, ante 86; and *Gibbs, C. J.*, *Dav. P. C.* 265.

(*o*) *Ante*, 43.

(*p*) *Ante*, 125, *n*.

is too large, has introduced nothing new, and if it had, it has not A.D. 1818. been infringed. It is too large: for it is taken out generally "for certain improvements in the smelting and working of iron," and cannot be understood to apply particularly to the smelting and working of iron obtained from slags or cinders, to which it is narrowed in the specification. The patent ought to have been confined to improvements in the smelting and working of iron obtained from slags or cinders, and to the application of lime for the prevention of the quality called "cold short" in iron so obtained. In 1800 and 1801, Matthias Koops took out two patents; the first for a method of manufacturing paper from straw, hay, thistles, waste and refuse of hemp and flax, &c., fit for printing upon; the second, for a method of manufacturing paper generally from like substances, enumerating them. This was a distinct notice of his invention, and accordingly William Plees, in his patent for a method of manufacturing paper for various purposes, taken out in 1802, was enabled to steer clear of Koops' invention (q). The case of *Lord Cochrane v. Smethurst* (r) is conclusive against the plaintiff upon this part of the case. As to the alleged novelty of the method of extracting iron from slags, and preventing the quality called "cold short" by the application of lime, stated in the specification, the evidence is all against the plaintiff. He has produced no definite improvements or new beneficial result, for when his combinations were discarded, the result was equally beneficial. The passage in Aikin is completely destructive of the plaintiff's case as to his claim for the invention of applying lime as a prevention of the quality called "cold short;" the word "scoriae," adverted to by the plaintiff's counsel, is only a synonyme for slags or cinders. After reading that passage, it can never be said, that the plaintiff, in the words of the specification, has discovered that the addition of lime or limestone would sufficiently prevent or remedy that quality in iron from which it is called "cold short." In *Bovill v. Moore* (s), the greater part of the processes which formed the combination on which the patent was founded, had been used before; the subsequent stages were new; but there, as in this case, the plaintiff had in his specification described an invention to a greater extent than the proof warranted, and the patent could not be sustained.

Cur. adv. vult.

DALLAS, J., delivered the judgment of the court. In this case it will not be necessary to state the patent with the specification at large, or the pleadings in the cause. These have been fully adverted to at the bar in the course of the argument

(q) Collier on Patents, Ap. 72, tit. Paper.

(r) 1 Stark, N. P. C., 205; Dav. P. C., 354.

(s) Dav. P. C., 361.

Judgment.

Verdict for the plaintiff involves the validity of the patent, subject to every legal consideration, and the infringement.

on each side, and it will now be sufficient to refer to them generally as I proceed. The declaration, in substance, charges an infringement of the patent; and the jury have found for the plaintiff. The finding involves, first, that the patent is valid, subject to every legal consideration in this respect; and, secondly, that the defendants have worked according to the specification, and have thereby infringed the plaintiff's right. The last point, if properly found, leads to the first consideration, viz. the validity of the patent; but if it ought not to have been so found, then the validity becomes immaterial; for whether the patent be valid or not, signifies nothing in this particular case, if the defendant has not worked according to the specification.

To prove the infringement of the patent, one witness only was called; and this part of the case depends, therefore, entirely upon his testimony. And, before adverting to the evidence in question, it will be necessary to look to the patent, as far as it relates to this part of the subject. It has not been contended that it is a patent introducing into use any one of the articles mentioned, singly and separately taken; nor could it be so contended, for the patent itself shows the contrary; and if it had been a patent of such a description, it would have been impossible to support it; for slags had undoubtedly been made use of previously to the patent, so had mine rubbish, and so had lime. But, it is said, it is a patent for combinations and proportions, producing an effect altogether new, by a mode and process, or series of processes, unknown before; or, to adopt the language made use of at the bar, it is a patent for a combination of processes altogether new, leading to one end; and this being the nature of the alleged discovery, any use made of any of the ingredients singly, or any use made of such ingredients in partial combination, some of them being omitted, or any use of all or some of such ingredients, in proportions essentially different from those specified, and yet producing a result equally beneficial (if not more so), with the result obtained by the proportions specified, will not constitute an infringement of the patent.

A slight departure for the purpose of evasion an infringement; the question is, whether the mode of working is substantially different

It is scarcely necessary here to observe, that a slight departure from the specification for the purpose of evasion only, would, of course, be a fraud upon the patent; and therefore, the question will be, whether the mode of working by the defendant has, or has not, been essentially or substantially different. For this we must look to the evidence of E. Forman; and he being the single witness to the point, by his testimony this part of the case must stand or fall. It may be difficult entirely to reconcile different parts of his evidence with each other, if his answers to the several questions be taken separately and detached; but looking to the result, it seems to be clear. On the part of the plaintiff he proves, that, before the patent was taken out, the defendants were not in the habit of making use of slags, and that his attention

g called to the subject by the patentee in the first instance, A.D. 1818. then by the patent itself, he has made use of them uniformly since; he has since also, at times, used mine rubbish, and lime, which last, he also admits, was used to prevent the short," which defect he allows was and is thereby prevented. r, therefore, he proves separate use and occasional combination.

He is next asked, as to the proportions mentioned in the t: "Did you apply the lime in these proportions?"—his r is—"I say, no, to that." "Have you worked by the fication?"—"No; we did not." He then explains in what cts they departed from the specification. This is his evidence on the examination-in-chief. On the cross-examination, ys, that the proportions used were very materially different, hat the proportions in the patent are not essential; that it l make no difference to him if he were to be restrained using these proportions, and that the result would be r obtained by materially departing from them; indeed, by t losing sight of them altogether. With respect to slags, consideration, he states that the defendant had used slags ously to the patent, in the puddling furnace, for months her. As to mine rubbish, he says, we varied the proportion, and we found, in experience, that the use of it was best out reference to the preparations and restrictions pointed n the specification, and when omitted, the result was best . It is true, he afterwards states, that this omission took when he was absent from home, and that, on his return, dered the mine rubbish to be restored; and in this respect, going to this single point, there appears to be an inconsistency. But still, as the case stands on his single evidence, if, stance and result, it proves a mode of working essentially ent from the specification, the foundation of the plaintiff's is altogether gone. And the rule is in this respect strict, ated by Mr. Justice Buller, in the case of *Turner v. er (t)*. In that case, the learned judge expressed himself ese words: "Whenever the patentee brings an action on atent, if the novelty or effect of the invention be disputed, ust show in what his invention consists, and that he pro d the effect proposed in the manner specified (u);" and in her part of the same case, he adds, "Slight defects in the ification will be sufficient to vacate the patent (x):" and king of degree and proportion, he says, "The specification d have shown by what degree of heat the effect was to be luced." In that case, as in a great variety of others, in- ces may be found to show the strictness of the law as bear- upon this point, either in regard of omission, or of superfluous

(t) *Ante*, 77.(u) *Ibid.* 81.(x) *Ibid.* 82.

Judgment.

addition, or of uncertainty or insufficiency in quantities proposed. But, further, the evidence so applied does not confine itself to this point only; for it disproves also utility, as far as it depends on combination and proportion, leading and conducing to a specific result. Neither can it be justly said, that the use of the separate ingredients, or some of them partially combined, is a use made of the invention in part so as to support the counts adapted to such partial use; because, as it has been already observed, and will more particularly be adverted to hereafter, each of the ingredients had before been separately used, and had been used, more or less, in partial combination.

On the whole, our opinion is, as to this part of the case, that, considering the evidence of Forman in its substance and merit, and with reference to the peculiar nature of the patent, an infringement of the patent is not thereby proved.

Two grounds of patents, improvement or discovery; the one in respect of something already known, the latter absolutely new.

And here I might stop, but, from consideration for the parties, it may be proper to dispose of the next ground on which the rule was obtained, namely, that the invention claimed is not new; and this, like every other patent, must, undoubtedly, stand on the ground of improvement, or discovery. If of improvement, it must stand on the ground of improvement invented; if of discovery, it must stand on the ground of the discovery of something altogether new; and the patent must distinguish and adapt itself accordingly. If the patent be taken out for discovery, when the alleged discovery is merely an addition or improvement, it is scarcely necessary to observe that it will be altogether void. Of which description this patent is, will be hereafter examined; at present it will be sufficient to say, that the grounds of novelty and discovery are those on which it must stand. If the discovery claimed were known and made use of before, the patent is at an end.

The invention must be communicated, and made use of.

Now, with reference to this particular case, it may be proper shortly to consider, what novelty and discovery are deemed to be; and when I say novelty and discovery, I mean to distinguish between those terms; for it is not enough to have discovered what was unknown to others before, if the discovery be confined to the knowledge of the party having made it; but it must have been communicated, more or less, or it must have been more or less made use of, so as to constitute discovery, as applied to subjects of this sort. The case of Dollond (*y*) has been mentioned at the bar, as also Tennant's patent for bleaching liquor (*z*), and they stand so contrasted as to illustrate the distinction to which I allude. In Dollond's case, the question was, who was the true inventor within the meaning of the statute. Hall had made the discovery in his closet, but had never made it

(*y*) See report of case, *ante* 43.

(*z*) See case, *ante* 125, in note.

public; and on this ground, Dollond's patent was confirmed (a). A.D. 1818. In Tennant's case, the great utility of the invention was proved, and the general ignorance of the bleachers of it till after the date of the patent. But, on the other side, a bleacher near Nottingham deposed, that he had used the same means of preparing his bleaching liquor for six years anterior to the date of the patent, but that he had kept his method a secret from all but his two partners, and his two servants, concerned in preparing it. In addition to this, different conversations were proved to have passed between Tennant and a chemist of Glasgow, before the patent, and, in these conversations, the chemist had suggested to Tennant the basis of the improvement in question. Under these circumstances, Tennant was deemed not to be the inventor, and a nonsuit took place (b). So, in the case of Arkwright's patent, with respect to a particular roller, part of the machinery, the evidence was, that Arkwright had been told of it by one Kay; that being satisfied of its value, he took Kay for a servant, kept him for two years, employed him to make models, and afterwards claiming it as his invention, made it the foundation of a patent. The same fact was proved as to a crank, which had been discovered by a person of the name of Hargreave, which also had been adopted by Arkwright; and although it had been made use of in a degree before by a few, a general ignorance with respect to it was proved by a great number of persons in the trade. Mr. Justice Buller was of opinion, that though this might be perfectly true, that is, the general ignorance as to those improvements, it signified nothing; the fact that the witnesses on the part of the defendant had not heard of those improvements, was no contradiction of previous knowledge and previous use by others (c). The close application of these decisions to the present case will appear as I proceed further; at present, I will only say, looking at the subject in question in this light, is the plaintiff to be considered as the inventor, be it improvement claimed, or be it altogether discovery? And this leads to the evidence in this respect.

(a) Dollond was held to be the true and first inventor within the statute, and he recovered damages for an infringement, *ante* 43, n. a. But how were Dr. Hall's rights affected; could he be restrained from making telescopes for his own use, or from using one already made? See the suggestion of Dallas, J., *ante* 240, and early cases, *ante* 6, 7.

(b) It should be observed, that the part of the process suggested by the bleacher to Mr. Tennant was said by Lord Ellenborough to be an indispensable part of the process, *ante* 125, n.; this then being of the substance and essence of the invention, the party having acquired such a knowledge from another, could not be considered the true and first inventor; on the other ground of non-

suit, the secret user before the patent, considerable difficulty exists. The authority of Tennant's case, in respect of this objection, must not be too implicitly relied on. See *ante* 44, and 126, in notes.

(c) See *R. v. Arkwright*, *ante*, 72. See also *per* Sir Vicary Gibbs, C.J.: "Fifty witnesses proving that they never saw the invention before would be of no avail, if one were called who had seen and practised it." *Dav. P. C.* 350. But such evidence must be carefully weighed, and it must never be forgotten how slight are the differences between success and failure, and how easily parties may persuade themselves into the belief of having done the very same thing, although failing to attain the same degree of success.

Judgment.

On the part of the plaintiff several witnesses were examined, on whose testimony it will be sufficient generally to observe, they proved that, of whatever description that for which the patent was taken out may be deemed, it was altogether new to them. One witness, in particular, is entitled to have the greatest weight given to his testimony—I mean Mr. Mushet; he has himself published treatises on the subject of iron; he has studied the subject as matter of chemistry and science; his works have been received every where as a standard authority; and further, he is a person of the greatest and most extensive practical experience (*d*). His account of the patent in question is, that it is a combination of processes known before separately, but in combination new, and producing a beneficial result. So far the case appears, upon the part of the plaintiff, to be strongly proved. But, first, it is to be observed, that the evidence, be its strength what it may, is negative merely. The ignorance of the particular witnesses to which I allude may be perfectly true, consistently with a perfect knowledge by others of the existence of those materials, separately or in combination, and in a degree more or less extensive; and here Tennant's case and Arkwright's case, already mentioned, apply, being in this respect and to this point precisely similar.

But let us next look to the articles which, in substance and in the mode in which they are directed to be made use of, constitute the discovery claimed. Taken as separate ingredients, in this stage of discussion, I shall not dwell upon them; I will only generally say, that of slags or cinders, of mine rubbish, and of lime, as used in various ways, and generally considered as connected with the working of iron, not only knowledge, but extensive use has been proved, and this by a great number of witnesses, the evidence being all on one side; inasmuch as there is positive testimony against negative testimony, leaving a result of perfect consistency.

I come next to combination and proportion, considered with a view to utility. If Forman's evidence is to be our guide (and by his testimony the plaintiff must succeed or fail as to the defendant's working by the specification), he not only proves a departure from proportions, but a variation in combination, or proportion. If the specific combination may be materially departed from, where is the line to be drawn, and what is there beyond general combination in this patent, which professes to be precise and specific in apportionment and application? And it will be recollected, that with a little change of ground, as urgency required, the case has been so represented and so argued at the bar.

Thus much of slags and mine rubbish. I have already spoken

(*d*) See various treatises by this author, and his work, entitled "Papers on Iron and Steel." Lond. 1840.

in part of lime; but of this, which, though not the sole, seems A.D. 1818. to be the most material object, it will be necessary now to speak more fully.

First, then, consider the end to be attained, and next, the proposed means of attaining it. The purpose is to render bar iron more tough, by preventing that brittleness which is called "cold short," and which renders bar iron less valuable: the means of prevention stated, are the application of lime. In what way, then, is lime mentioned in the patent? The first part of the specification, in terms, alleges certain improvements in the smelting and working of iron, during the operations of the blast furnace; and then, introducing the mention of lime, it states, that the application of it to iron, subsequently to the operation of the blast furnace, will prevent the quality called "cold short."

So far, therefore, the application of lime is, in terms, claimed as an improvement, and nothing is said of any previous use, of which the use proposed is averred to be an improvement; it is, therefore, in substance, a claim of entire and original discovery. The recital should have stated, supposing a previous use to be proved in the case, that "whereas lime has been in part, but improperly, made use of," &c., and then a different mode of application and use should have been suggested as the improvement claimed. But the whole of the patent must be taken together, and this objection will appear to be stronger as we proceed. And here again, looking through the patent, in a subsequent part of the specification, the word "discovery" first occurs; and I will state the terms made use of in this respect—"And I do further declare, that I have discovered that the addition of lime will prevent that quality in iron from which the iron is called 'cold short,' and will render such iron more tough when cold; and that for this purpose I do add a portion of lime, or limestone, to be regulated by the quantity of iron to be operated upon, and by the quality of the iron to be produced, to be added at any time subsequently to the reduction in the blast furnace, and this from whatever substance the iron may be produced if expected to prove 'cold short.'" Now this appears to be nothing short of a claim of discovery, in the most extensive sense, of the effect of lime applied to iron to prevent brittleness, not qualified and restrained by what follows as to the preferable mode of applying it under various circumstances; and therefore rendering the patent void, if lime had been made use of for this purpose before, subject to the qualification only of applying it subsequently to the operations in the blast furnace.

How then is the evidence in this respect? And, first, if the dictionary, so often referred to, in substance informed the public of what the specification or the patent professes to inform them, that will undoubtedly be the first discovery; as in Arkwright's case it was agreed, that a book produced, printed, and

If the invention be an improvement, it must distinctly appear on the face of the specification to be claimed as such.

Judgment.

published previous to the patent, constituted the discovery so as to negative invention by the patentee (e). It will be sufficient to read one passage from this dictionary; Rinman says, that cast iron, which by the common treatment would yield "cold short" bar, may be made to afford soft malleable iron by fusing it with a mixture of equal parts of lime and scorix. I need not say that scorix are produced by the operation of the blast furnace; and lime is proposed in combination with those.

Here then is "cold short" stated to be prevented by the application of lime subsequently to the operation of the blast furnace; and in this view of the subject, nothing turns upon precise proportion, the claim being a claim of discovery generally. The book was published in England in 1807, and the patent was taken out in 1816. In effect, therefore, this book completely negatives the novelty of the alleged discovery. But look to the other evidence of actual previous use in various instances in the country. I will shortly state part of it only, the whole being consistent in this respect. One of the witnesses, Northall, was asked (the question going back many years before the patent)—"Did you know how to prevent the quality of 'cold short' in the iron produced from the cinder?" His answer is—"By the application of lime in the puddling furnace." Now the puddling furnace is one of the stages in which, by the express words of the specification, the lime for this purpose is to be applied; but this, he adds, he heard from one person only, and therefore this, if it stood singly, might be considered as slight proof. I will not stop to inquire, whether this evidence alone would or would not be sufficient, according to the cases which have been decided; but let me next see what further knowledge, and, beyond this, what use is proved, not only in one, but in many instances, and by the different witnesses called, only observing, before I quit the evidence of this witness, that this question appears to have been put to him by one of the jury:—"You say that you knew that using lime would prevent the 'cold short;' can you tell us how it ought to be used?" The answer is—"In the puddling furnace." There is much other evidence to the same effect, but I shall content myself with referring to that of Mr. Robinson. He produced a journal of entries, in which successful experiments were noted, at the time they were made, of the application of lime both in the puddling and refinery furnaces, for the express purpose of preventing the "cold short," followed up by a continued use from 1808 to 1816 (a period of eight years anterior to the patent), when the works which he superintended stopped. The application, therefore, of lime in some way for the purpose proposed,

(e) *Ante*, 72.

of being a secret unknown before, was as public as it A.D. 1818. rendered by a work of extensive circulation; and in view of the subject, therefore, this claim had been more or less in actual use in this country, so that the present patent would have no effect operate as an abrogation of vested and existing rights.

I am now upon the subject of the general application of the patent claimed as a discovery, without reference to specific appropriation, except as before mentioned.

In this part of the case I will only further remark, that if the material part of the alleged discovery, being a material part, fail (the whole of the alleged discovery failing, the patent is void).

It is altogether void; and to this point, which is so clear, it is unnecessary to cite cases. In every view of the subject, the claim to invention and novelty fails, not only virtually and technically, as the patent and specification are framed, in effect and substance, and in the broadest and most extensive view of the subject. At the time of the trial, the utility of the alleged discovery being admitted, the fairness of the specification being established, and the publicity afforded by the patent compared with the partial and previous limited use, giving it the same public, as it appeared to me, all but the benefit of actual original discovery, constituted a case so far favourable to the defendant; but, looking to the strictness with which, on the subject of discovery, patents must be construed—looking to the cases in which of the nearest analogy, and to the peculiar facts of this case under all its circumstances, we feel ourselves bound to decide against the originality of that which is claimed by the patentee as new. On both grounds, therefore—first, that the invention of the patent has been proved; and secondly, that the invention is not new—we are of opinion that the plaintiff is not entitled to recover.

Serjt., then objected, that the court could not in this case grant a nonsuit to be entered, but should grant a new trial.

MR. J., stated, that if he had not wished to give the defendant an opportunity of going into the whole of the case, he might have nonsuited the plaintiff on the evidence of Edward (f).

Rule absolute for a nonsuit (g).

MR. Serjt., on a subsequent day, moved, on authority of *Minchin v. Clement*, (1 B. & C. 100) that this nonsuit should be set aside, and a new trial had. He urged that he should have been allowed exceptions, of which he was now denied that his client was in possession of a right, by the course adopted by the court, and from him.

MR. J., repeated his observations above and *Burroughs, J.*, said, that the course of the court as to the judgment, was the

result of great consideration both in public and in private.

(g) The principal defect of the specification, the claiming that as a discovery or new invention, which at the most was only an improvement, is so distinctly set forth in the above elaborate judgment, that it would be superfluous to add any further remarks.

See ante 229, n. as to the particular class to which this kind of invention may be referred.

*Entry of Disclaimer and Memorandum of Alteration under
5 and 6 W. 4, c. 83, s. 1 (a).*

PERRY AND OTHERS v. SKINNER.

[2 M. & W. 471.]

E. T., 1937. *Cor.* Lord Abinger, C. B.; Parke, B.; Bolland, B.; Alder

Where a patent is originally voidable, but amended under 5 & 6 W. 4, c. 83, by filing a disclaimer of part of the invention, that act has not a retrospective operation so as to make a party liable for an infringement of the patent, prior to the time of entering such disclaimer.

Case for the infringement of a patent for an improvement, of which the plaintiffs were assignees. The defendant stated that, after the assignment to the plaintiffs, and after the passing of a certain act of parliament, entitled "An Act to amend the laws touching letters patent for inventions," on the 30th of April, 1836, the plaintiffs, by and with the advice of Sir Robert Mounsey Rolfe, Knt., then being his Majesty's Solicitor General, first had and duly certified by his fiat and signature in that behalf, entered with the clerk of the patents a certain disclaimer and memorandum of alteration, in writing, as part of the specification (the same not being such disclaimer or memorandum of alteration as extended the exclusive right granted by the patent), by which disclaimer and memorandum of alteration the same being under the hands and seals of the plaintiffs, did disclaim as follows (setting forth the particular

(a) The following is the section referred to in the two subsequent cases:—"Whereas it is expedient to make certain additions to, and alterations in, the present law touching letters patent for inventions, as well for the better protecting of patentees in the rights intended to be secured by such letters patent, as for the more ample benefit of the public from the same: be it enacted by the King's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present parliament assembled, and by the authority of the same, that any person who, as grantee, assignee, or otherwise, hath obtained, or who shall hereafter obtain, letters patent, for the sole making, exercising, vending, or using of any invention, may, if he think fit, enter with the clerk of the patents of England, Scotland, or Ireland, respectively, as the case may be, having first obtained the leave of his Majesty's Attorney General or Solicitor General, in case of an English patent, of the Lord Advocate or Solicitor General of Scotland in the case of a Scotch patent, or of his Majesty's Attorney General or Solicitor General for Ireland in the case of an Irish patent, certified by his fiat and signature, a disclaimer of any part of either the title of the invention, or of the specification, stating the reason for such disclaimer, or may, with such leave as aforesaid, enter a memorandum of any alteration in the said title or specification, not being such disclaimer or such alteration as shall extend the exclusive right granted by the said letters patent; and such disclaimer or memorandum of alteration,

being filed by the said clerk of the patents, shall be enrolled with the specification, shall be taken to be part of such letters patent, and shall be specified in all courts whatever: and always, that any person may enter a disclaimer or memorandum of alteration in the same manner as caveats are now used in England, against such disclaimer or alteration, being so entered, shall give the same notice as is required by the Statute in relation to caveats, entering the same a right to have notice of such disclaimer or alteration, the application being heard by the Attorney General or Solicitor General, or Lord Advocate, respectively: Provided also, that no such disclaimer or memorandum of alteration shall be receivable in evidence in any action or suit (save and except in any case where the party applying for the same shall be bound by *scire facias*), pending at the time when the disclaimer or alteration was enrolled, but that in such action or suit the original title and specification alone shall be given in evidence, and that the disclaimer or memorandum of alteration shall be taken to be the title and specification of the invention, for which the letters patent have been granted: Provided also, that no person shall be lawful for the Attorney General or Solicitor General, or Lord Advocate, before such fiat, to require the party applying for the same to advertise his disclaimer or alteration in such manner as to such Attorney General or Solicitor General, or Lord Advocate, shall be directed, and shall, if he so require such advertisement, certify in his fiat that the same has been duly made."

For form of disclaimer, &c., and proceedings, under this section, see *Law and Equity*, tit. Disclaimer.

the specification disclaimed, and the alteration in the claiming E. T., 1837. clause, necessary to make it consistent with the previously mentioned part of the specification), which said disclaimer and memorandum of alteration afterwards were filed by the said clerk of the patents, and duly enrolled with the said specification, pursuant to the statute. The declaration then alleged, that the defendant, within the term of fourteen years, to wit, on the 20th of February, 1836, and on divers other days, &c., did counterfeit the said invention, and did use and practise the same, otherwise than in relation to the said part of the invention so disclaimed, in breach, &c.

Plea. as to so many of the supposed grievances as were committed before the 30th of April, 1836, *actionem non*, because the said disclaimer, &c., was not entered or enrolled until the 30th of April, 1836, as aforesaid, and until after the committing of the grievances in the introductory part of the plea mentioned, and that the said invention, for which the said letters patent were originally granted, was not, at the time of making and granting the said letters patent, a new invention; but on the contrary thereof had been, as to a material part thereof, publicly and generally practised, used, and vended, before the date of the said letters patent, by reason whereof the rights, &c., granted by the patent, were void; wherefore the defendant, at the said several times, when, &c., before the said 30th of April, 1836, and whilst the said rights, &c., were so void, &c., committed the said several supposed grievances, as he lawfully might.

Replication. That the said last-mentioned grievances were respectively committed only with relation to, and in respect of, those parts of the said invention to which the said disclaimer and memorandum had no reference, and did not apply; and that the said last-mentioned parts of the said invention were, at the time of making and granting the said letters patent, a new invention.

Special demurrer and joinder. The point stated for argument in the margin of the demurrer book, on the part of the defendant, was as follows:—The defendant means to contend, that the patent was, and by the replication is admitted to have been, void at the time of the alleged infringement, to which the plea is pleaded; and therefore such infringement was lawful when it took place, and cannot be rendered otherwise by a subsequent disclaimer, even as to those parts of the patent which are not disclaimed or altered.

Wightman, in support of the demurrer. The question is, whether, supposing the patent to have been originally void, but afterwards amended under the recent act, 5 & 6 W. 4, c. 83, a party can be made liable by relation for an infringement committed in the mean time, before the amendment has been made. The question turns on the construction of the first section of

*Argument on
demurrer.*

that statute, which, after providing that any person having obtained letters patent for any invention, may enter a disclaimer of any part of either the title of the invention, or of the specification, or a memorandum of any alteration therein, enacts, that "such disclaimer or memorandum of alteration being filed with the clerk of the patents, and enrolled with the specification shall be deemed and taken to be part of such letters patent and such specification, in all courts whatever." By the old law, before the passing of this statute, where the specification was too large, the patent was held to be wholly void (b). The declaration here describes the disclaimer and memorandum of alteration as having been made on the 30th of April, 1836. The declaration states that the disclaimer was not enrolled until the 30th of April, and not until after the infringement had taken place; that the invention was not a new invention, but, as to a material part, an old invention, by reason whereof the patent was void. It is admitted by the replication, that every thing which was wrongfully done by the defendant was before the disclaimer, but it is alleged that parts of the invention so infringed were new. Apart from the recent statute, the defendant would have a good defence, as the patent would be wholly void. And the statute has no retrospective operation. It says, that such disclaimer being filed and enrolled, it shall be deemed to be part of the specification. [*Alderson, B.*: Part of the specification it does not say of the original specification.] Then there is a proviso, "that no such disclaimer or alteration shall be receivable in evidence in any action or suit (save and except any proceeding in *scire facias*) pending at the time when a disclaimer or alteration was enrolled, but in every such action or suit the original title and specification alone shall be given in evidence." But there are no words in the act making past wrong-doers by relation; the disclaimer is only to operate from the date of its filing and enrolment. [*Alderson, B.*: Then what is the use of the proviso?] It may have been introduced *majori cautela*, to meet the case where a period has intervened between the obtaining of a fiat for the alteration and the enrolment, in which there may have been an action brought. Admitting that some doubt may arise on the construction of the proviso, the court will not, without express and decisive words, put such a construction upon the clause as would render innocent parties wrong-doers by relation. If such a construction were put upon it, it might be an inducement to a person taking out a patent to put into his specification a great deal more than he was entitled to; and then, without any risk, by means of a subsequent disclaimer, give validity to his patent, and reco-

(b) *R. v. Else*, ante 76; *Campion v. Benyon*, 3 Brod. & B. 5; s. c. 6, B. Moo. 71.

against all who had infringed it in the mean time; and it would be impossible to take advantage of its invalidity. E. T., 1837.

Rotch, *contra*. The act has a retrospective operation where the infringement takes place with respect to a part of the invention, to which the disclaimer does not apply. If the words of the statute mean that the disclaimer becomes part of the specification "from thenceforth," the effect of that would be to give virtually a new patent, which the statute never intended. The statute intends that the disclaimer shall take effect from the date of the letters patent. The language of the proviso, that the disclaimer or alteration shall not be receivable in evidence, in any action pending at the time of the enrolment, is confirmatory of that view of its meaning.

LORD ABINGER, C. B.: It cannot be doubted that the act of parliament is obscurely worded, and we are now called upon to put an interpretation upon it. The act would be unjust if it made a man who was acting consistently with the law at a certain time, subsequently a wrong-doer by relation. We never can presume that such was the intention of the legislature, and we are not at liberty to construe a doubtful act by any such presumption. The only argument that can be offered is upon the proviso which says, "that no disclaimer shall be receivable in any action or suit pending at the time when such disclaimer was enrolled." We consider the sound way of interpreting that to be, that it shows the legislature did not intend to make a person a wrong-doer by relation; because it did not presume that any man would have the courage to bring an action, after he had actually disclaimed, for an infringement of a patent long before such disclaimer was thought of. The intention of the legislature doubtless was, that he should not have the benefit of the disclaimer as to infringements gone by long before such disclaimer was made. The act of parliament is not specific on this point; but we think it never could have been the intention of the legislature to make persons wrong-doers by relation. The judgment of the court, therefore, will be for the defendant. *Judgment.*

PARKE, B.: I am of the same opinion. The act of parliament is not very clearly worded, and it might seem, at first, that the construction to be put upon the words of it would be in favour of Mr. Rotch's view of the case. The act enables any party to disclaim "any part of either the title of the invention, or of the specification, stating the reason for such disclaimer, or, with such leave as aforesaid, to enter a memorandum of any alteration in the said title or specification, not being such disclaimer or such alteration as shall extend the exclusive right granted by the said letters patent; and such disclaimer or memorandum of alteration, being filed by the said clerk of the patents, and enrolled with the specification, shall be deemed and

Judgment.

taken to be part of such letters patent or such specification all courts whatever." The construction Mr. Rotch contends is, that it shall be deemed and taken for part of the patent as originally enrolled. The rule by which we are to be guided in construing acts of parliament is, to look to the precise words, and to construe them in their ordinary meaning, unless it would lead to any absurdity or manifest injustice if it should, so to vary and modify them, as to avoid that which certainly could not have been the intention of the legislature should be done. Now, if the construction contended for by Mr. Rotch was to be considered as the right construction, it would lead to the manifest injustice of a party, who might have incurred himself to a great expense in the making of machines, the subject of the grant of a patent, on the faith of which the patent being void, being made a wrong-doer by relation to the law, is an effect the law will not give to any act of parliament, the words are manifest and plain. We must engraft, the modification upon the words of the act in this case for the purposes of its construction, and read it as though it had been "shall be deemed and taken as part of the said letters patent &c., from thenceforth," so as not to make the defendant a wrong-doer. The only doubt arising in this case is from the words of the proviso; but we cannot think the legislature meant so unjust a thing as to restrict a party from doing that which he has a lawful right to do; and therefore, though there is some obscurity in the words of the act, we are bound to put a reasonable construction upon them; and undoubtedly the effect is to make the patent good for the future.

BOLLAND, B., and ALDERSON, B., concurred.

Judgment for the defendant.

The result of the above decision would appear to be, that the party entitled to letters patent in the title or specification, of which any disclaimer or memorandum of alteration has been enrolled, has no remedy at law in respect of any infringement prior to the date of the enrolment of such disclaimer or memorandum of alteration; but that from the date of such enrolment the patentee acquires a new title. It must, however, be observed, that the enrolment of the disclaimer appears on the record, and the replication admits the material averment in the plea, that the invention, the subject of the letters patent, was not new, and that the letters patent were consequently voidable, and in the application of this decision to other cases, regard must be had to the course of pleading and peculiar circumstances of this case. The consequences dwelt upon in the judgment of the court as those which would result from a different decision, assume not only the facts admitted by the pleadings, but that the patent was voidable before the disclaimer, by reason of the part disclaimed. But many cases may

arise in which the part disclaimed is not a material part of the invention, nor such a part as would prejudice the letters patent, as, for instance, a part, the utility of which is small. The effect of the proviso would appear to be, that in such legal proceedings other than *scire facias*, in which the original title and specification are relied on, a disclaimer enrolled subsequent to the commencement of such action, should not be received in evidence. Because if this were permitted, the defendant might on the trial find himself defeated by a defence which, but for such disclaimer, would entitle him to a verdict.

In the above case, the plaintiff declared an amended patent, and the breaches assigned in respect of acts prior to such amendment suppose a plaintiff to declare on his original patent, would he be precluded from recovering on reason of a disclaimer of an immaterial part of the invention in the case of *Lewis v. Marting*, (P. 52.) or by reason of a memorandum of disclaimer which was simply explanatory of some part of the specification, leaving the claims unaltered?

SPILSBURY AND ABBOTT v. CLOUGH.

[2 Gale & Dav. 17; 6 Jur. 579.]

21 Jan., 1842.

This was an action for infringing letters patent, granted 22d March, 1836, to W. Maugham, for certain improvements in the production of chloride of lime, and certain other chemical substances. The declaration, after stating the invention, and the grant in the usual manner, further stated that *Maugham*, by indenture of the 16th of April, 1839, between himself of the one part, and the plaintiffs respectively of the second and third parts, assigned to the plaintiff *Abbott* two equal undivided third parts or shares in the said letters patent, and in the invention and improvements protected thereby, to hold, &c., for his own use and benefit, absolutely for the residue of the term; and that afterwards, by another indenture of the same date, between *Maugham* of the one part, and the plaintiff *Spilsbury* of the other part, *Maugham* assigned one equal undivided third part or share in the said letters patent and invention, and improvements protected thereby, to *Spilsbury*, for his own use and benefit, for the residue of the term; and that afterwards, on the 17th of April, 1839, *Abbott*, by indenture, between himself of the one part, and *Maugham* of the other part, reassigned to *Maugham* the said two equal undivided third parts in the said letters patent; and that afterwards and whilst the said *Maugham* was possessed of and interested in the said two equal third parts in the said letters patent, as last aforesaid, and before the committing of the said grievances on the 14th of November, 1838, *Maugham*, in pursuance of the act (5 & 6 W. 4, c. 83), with the leave of the then Solicitor General first had and obtained, and certified by his fiat and signature, duly enrolled with the clerk of the patents of England, a disclaimer of a certain part of the said invention, and a memorandum of alteration in the specification of the said letters patent. That afterwards, on the 14th of November, 1839, *Maugham*, by indenture between himself and *Abbott*, assigned the said two third parts back again to *Abbott*. The breaches were assigned in the usual form.

The assignees of letters patent, in respect of which a disclaimer had been enrolled by a grantee, who, at the time of doing so, did not possess the entire patent, may maintain an action for infringement. A plea that the said invention was not at the time of making the said letters patent a new manufacture within this realm, bad for duplicity. *Seem*, that the plea would have been good, if the words of the statute had been pursued.

The defendant among other pleas pleaded, fourthly, that the said invention in the said letters patent mentioned, was not at the time of the making of the said letters patent a new manufacture within this realm, within the true intent and meaning of the act of parliament in that case made and provided.

To this plea there was a special demurrer, assigning for *Special demurrer*. grounds that it does not appear with certainty whether it is intended in the plea to dispute that the invention is new, or that it is a manufacture within the meaning of the statute; and that

although in the plea it is alleged that the said invention was not at the time of making the letters patent a new manufacture, yet it is not stated, nor does it appear thereby, whether the said defendant intends to rely on the fact that the invention was at the time of the making of the said letters patent publicly known, or that the said invention was not new to the inventor; and also that the plea attempts to put in issue matter of law, namely, whether the invention is a manufacture within the meaning of the statute.

The defendant gave notice that the declaration would be objected to.

Petersdorff, in support of the demurrer. The declaration good, and the action maintainable. The alleged objection, *Maugham* had no right under 5 & 6 W. 4, c. 83, s. 1, to make the disclaimer, because at the time he was not possessed of the entire interest in the patent, but of two-thirds only, does not properly arise, for the plaintiffs are the parties in whom the entire right to the patent is vested. But the disclaimer was properly made, for the statute gives the power of disclaiming "any person who, as grantee, assignee, or otherwise, hath obtained letters patent," so that *Maugham* had power to disclaim either in his original character of grantee, or in his subsequent character of assignee. As assignee, certainly, he had obtained two-thirds only of the patent at the time of disclaimer, but the plaintiffs have assented to his act by bringing this action. The real question is, whether a party who has not the whole interest cannot disclaim in conjunction with the parties who have the remainder.

The plea is bad for ambiguity. It alleges that the invention was not a new manufacture within this realm, within the meaning of the statute; so that it is doubtful whether the defendant means to contest the novelty of the invention, or that it was a manufacture.

Cleasby, contra. The declaration shows no right of action; for *Maugham*, at the time of disclaimer, was possessed of two-thirds only of the patent. The circumstance of his having been the original grantee is immaterial. The words of the statute are, as "grantee, assignee, or otherwise." [*Coleridge, J.*: What is the meaning of the word assignee?] It may mean the assignee of a foreign patent (a). [*Coleridge, J.*: The assignee may be said to have obtained the patent from the grantee.] But then a person who has a right to a part of a patent cannot disclaim. It is not probable that the legislature intended any thing so unreasonable as that the original grantee should, at any time after he has parted with his interest, have the power of

(a) The assignee of a foreign patent would have no right in this country except as grantee of letters patent for such imported invention.

affecting the patent; and the phrase "obtained letters patent," A.D. 1842. in the statute, clearly means possessed of letters patent. If the concurrence of other part owners in the patent would qualify *Maugham* to enter the disclaimer, their concurrence should have been averred.

The plea is good. If it is bad, it is bad for duplicity; and it has not been demurred to on that ground. The plea alleges distinctly, that the invention was not a new manufacture within the statute of James. There is no ambiguity in that allegation, though it may be objected to as double, inasmuch as it denies that the invention is new, and that it is within the statute. But the plea is, in truth, not double; for the allegation is one connected proposition, containing a single defence, to which both the statements involved in the allegation are necessary; such mode of pleading is good (b).

Petersdorff, in reply. [*Patteson*, J.: "Obtained" cannot very well be taken merely to mean "possessed" in the statute, 5 & 6 J. 4, for in the 2d section provision is made for allowing a party who has obtained a patent for something, of which it turns out he was not the first inventor, to petition for a confirmation of the patent; in that section, the person spoken of as having obtained the patent, is clearly the original grantee (c).] [*Wightman*, J.: The plea does not follow the words of the 6th section of the statute of James, which makes a reservation in favour of letters patent heretofore made, of the sole working or making of any manner of new manufacture within this realm.] The question, how far an assignee who had been grantee may disclaim, does not arise, because in this case the disclaimer was by the grantee. There is nothing in the act to intimate that a party entering a disclaimer should have any present interest. The plea is uncertain. It would be difficult in advising on evidence to say, what defence the plaintiff must be prepared to meet.

Lord DENMAN, C. J.: The first question is, whether the declaration is good. The disclaimer is stated to be by the grantee of the letters patent; at a time when he had not the entire interest in them. I think he falls within the description given in the statute of the person who may enter a disclaimer, and that the declaration is good. Any inconvenience which might arise from such a power may be obviated by the exercise of the discretion conferred upon the Attorney and Solicitor General, who will, before they grant leave for that purpose, take cognizance of the name in which permission is given.

The second question is, on the goodness of the fourth plea. Suppose the words of the statute had been followed; then, I

(b) *O'Brien v. Saxon*, 2 B. & C. 908.

(c) Any other meaning of the word is inapplicable to the circumstances to which the section relates. The grantee is the only person who can

have, or be possessed of, letters patent in respect of his character of inventor, but the same inapplicability does not exist in the senses in which the word may be used in the first section.

Judgment.

think, it would have fallen within the rule which allows of a complicated proposition being pleaded though consisting of several facts. But the words of the statute are not followed, which are, "the sole working or making of any manner of new manufactures within this realm;" and therefore, being used in the ordinary sense, it is left doubtful whether the objection is, that the invention is not new, or that it is not a manufacture within the statute (21 Jac. 1, c. 3). That is clearly not a complicated proposition, but two propositions; and therefore the plea is bad.

PATTESON, J. : I cannot read the first section of stat. 5 & 6 W. 4, c. 83, without being convinced that the word "obtain" refers to the act of applying for and obtaining from the crown a grant of letters patent, though at the same time I do not understand the words "assignee, or otherwise." It is indeed argued that the word "obtain" may mean "get into his possession" through any other channel; but looking to the second section we find the same word; and there it is clear that it has the meaning which I attach to it; for it mentions any person who shall have obtained letters patent for any invention being found to be not the first inventor thereof, and gives power to him or his assigns to petition the crown. And I do not see why the same sense should not be attributed to it in the first, which it obviously has in the second section (d). Therefore, if the grantee has entirely parted with his interest, I think he would be a proper person to enter a disclaimer, if the Attorney or Solicitor General, whose permission is made necessary, should think proper to allow it. But this declaration shows that the original grantee had reconveyed to him two-thirds of the interest in the patent, whether collusively or not is not now a question.

As to the fourth plea, I thought at first that it contained one connected proposition, but the words "within this realm" apply to the working or making of the manufacture; and the words of

A grantee of letters patent, though having entirely parted with his interest, may enter a disclaimer.

(d) But the important question is, whether it has that sense and no other. If the word "obtain" in the first section is to apply only to the immediate grantee of letters patent, and he alone is the proper party to enter a disclaimer or memorandum of alteration, the words "assignee or otherwise" would not only be without meaning, but great hardship will result in certain cases; as, for instance, where the grantee, who has parted with his whole interest, refuses to enter such disclaimer, or where the letters patent may have vested in the executors or administrators of a grantee, or in assignees under a bankruptcy. With respect to the suggestion that these words may apply to a party who first procures letters patent in this country for an invention learnt or imported from abroad, it must be observed that such a party is the grantee of the letters patent as the true and first inventor in law, and has no other or different rights than the grantee of letters patent for an in-

vention, not derived from such a source. It may also be remarked, that in the second section the word "obtain" cannot in the nature of the thing be applied to any other than the grantee; the inventor must be the grantee, the term assignee is altogether inapplicable. *Ante* 257, n. c. Thus the subject-matter of the two sections being different, the construction of words employed will, to meet the necessities of the case, require a corresponding modification.

The preceding case decides, that a grantee who has parted with a part or the whole of his letters patent may make a disclaimer; but does it also decide that the assignee of the whole letters patent may not also make a disclaimer? The objects of the statute would be defeated in many cases by such a construction, and that question would appear neither to have arisen, nor to have been decided, in the above case.

are not strictly pursued. I think the plea is am- A.D. 1842.
and that the plaintiff might be put in a difficulty how

DGE, J.: I am of opinion that the declaration is good.
of the statute extend to what has been done in this
the disclaimer has been made by the party who has
t within the meaning of the statute. The words
or otherwise" may be reconciled with our construc-
t the person who has obtained" means the original
r the words "assignee or otherwise" may apply to a
ention, of which a party in this country may become
e, and be the first to obtain an English patent for it (e).
venience which would result from allowing a person
arted with his right to enter a disclaimer without any
is obviated by the provisions with respect to the
by the control to which it is subjected of the officers
vn.

orth plea is substantially defective; a person asked to
on the evidence to rebut it, would be in doubt as to
o which it should be directed.

MAN, J.: It is only by a forced construction that the
ain" could be construed to apply to any other person
erson to whom originally the letters were granted by
. The argument *ab inconvenienti* is answered by a
o the provisoes in the first section.

ourth plea had omitted the words "within this realm,"
ave been good; but as it stands, it applies those
the invention, whereas the act applies them to the
making (f).

Judgment for the plaintiffs.

e 256, n. a.

ncluding observation of this learned
construction of the statute, is of the
rtance with reference to the ques-
the simple user of an invention or
ed from abroad, without any know-
nstruction of that article, or its con-
the source whence it came, there
nufacture of the article within the
vitate letters patent for the same
ated to an independent inventor,
hing of the existence of such an ar-
wing of its existence, had no know-
it was to be made, but who either
nowledge of the manufacture from
rented it by his own wit and in-
ntroduced the working and making
nufacture into the realm through the
specification of letters patent, and
e manufacture into practice, and
eity consequent on such proceedings.
f any simple mechanical combina-
of peculiar construction, the fact
e and user of such an article within
ould raise a strong presumption

against the grantee of such letters patent being
an independent inventor; this however would be
a question of fact. (See *Lewis v. Marling*, 10
B. & C. 22, and *ante*, 126.) But in the case of
a compound, presenting little or no trace of its
elements, and of their proportions, as a metal, a
paint, a cement, a medicine, and similar articles,
the discovery of the working and making of such
a manufacture may be matter of great research
and difficulty; the constitution of the article it-
self, together with the fact of its previous user in
ignorance of its manufacture, would be evidence
to raise a strong presumption in support of the
claim of such grantee to be an independent and
real inventor.

The difficulty which this question presents, ap-
pears to arise from not distinguishing between the
use of an invention or article as a consumer, and
the using, exercising, and putting in practice, the
invention spoken of in the letters patent as a ma-
nufacturer of an article, which is, in fact, the
working and making of the manufacture spoken of
in the statute. The purchaser, user, and con-
sumer of a patent lock, cork-screw, medicine, and
paint, does not use, exercise, and put in practice,

Notice of Objections under 5 & 6 W. 4, c. 83, s. 5 (a)

Nov. 25, 1837.

BULNOIS v. MACKENZIE.

[4 Bing. N. C. 127.]

In actions for infringing a patent, the notices of objection delivered by defendant under 5 & 6 W. 4, c. 83, s. 5, are not conclusive at his peril; but the court or a judge, under their general jurisdiction, as well as under the statute, may order a further and fuller notice.

This was an action on the case for infringing a patent improved cabriolet, invented by Moses Poole, and by signed to the plaintiff.

The defendant pleaded several pleas, and delivered with a notice of the following objections to the patent: First, alleged invention was not at the time of granting the new; secondly, that Poole was not the true and first in thirdly, that Poole was not at the time of granting the possession of the alleged invention; fourthly, that at the time of granting the patent the alleged invention had been used by others; fifthly, that the supposed improvements were no invention as to the public use thereof; sixthly, that the invention was imperfect, in not ascertaining the nature of the invention, and not showing the application of the alleged invention to the construction. These objections were a mere echo of the

On the 14th of June last, *Park, J.*, after hearing counsel for both sides at chambers, upon a summons for further and better account in writing of the objections to be rendered, ordered the defendant's attorney to deliver a better and better account in writing of the objections to be rendered. Whereupon the defendant added to his fourth objection, that the alleged invention had been used by James Hargrave in England, and by divers other persons in other parts of the kingdom; altered the fifth, into an objection that the specification did not describe the nature of the invention; that every principle stated in it was already known to the public; and that it contained no new combination

the manufacture of those articles, or the said inventions, within the meaning of the letters patent; if he did, such purchaser, user, or consumer, would, in the words of the letters patent, require a license to use the same, in writing, under the hand and seal of the patentee. The not attending to this distinction, between the using an invention, and the working and making of the manufacture, of which the invention is the result, has given rise to some difficult questions in the law of patents, and which would appear not to be well founded. See that suggested by Lord Eldon, *ante*, 7 & 48; see also *ante*, 216, in notes.

(a) The fifth section is as follows: "And be it enacted, that in any action brought against any person for infringing any letters patent, the defendant in pleading thereto shall give to the plaintiff, and in any *scire facias* to repeal such letters patent

the plaintiff shall file with his declaration of any objections on which he means to rely at trial of such action; and no objection shall be allowed to be made in behalf of such defendant or plaintiff respectively at such trial, unless the objections stated in such notice be proved always, that it shall and may be proved by any judge at chambers, on summons to appear, such defendant or plaintiff on such summons to appear respectively, to show cause why such notice should not be allowed to offer other evidence whereof notice shall not have been given as aforesaid, to give leave to offer such objections on such terms as to such judge shall seem. The general construction of this section has been given in practice under it, see the subsequent cases, also *Neilson v. Harford*, *post* 332, 352, 370.

and the sixth into an objection, that vehicles with two wheels, drawn by one horse, and entered behind, were in public use before the granting of the letters patent; and that the specification did not set out with any certainty what Poole claimed as an invention.

The plaintiff then took out a summons, calling on the defendant to furnish the name, description, and place of abode, of the persons referred to in the fourth objection, and further add better objections in lieu of the fourth, fifth, and sixth, to be precluded from calling witnesses in support of the fourth.

VAUGHAN, J., after hearing counsel on both sides on the 22d June, made an order to that effect. The defendant then replied to the first objection, that the details of the alleged invention (specifying them), as well as the alleged invention, were not new; and in the place of the fourth, fifth, and sixth objections, substituted a minute detail of defects in the specification, concluding the whole with a statement of the address and description of Jams Hargrave Mann.—Early in the present term,

Sir F. Pollock obtained a rule to rescind the two orders of the 14th and 22d of June, and for the defendant to be at liberty on the trial of the cause to rely on the objections originally delivered with the pleas. He contended that, under the late statute, the defendant must deliver in a particular of objections, at his own peril, and that the judges had no authority to interfere under their general jurisdiction.

Wilde, Sergt., and Hoggins, who showed cause, insisted that even if the late statute did not confer any authority in this matter, the court had a right to interfere by virtue of their general jurisdiction in regulating the proceedings in a cause; as, in ordering particulars of a plaintiff's demand; further particulars; the production and inspection of documents, and the like; for which orders there was no authority by statute. In *Blackrey v. Porter* (1 Taun. 386), they ordered a copy of an assignment of a lease, to enable the plaintiff to commence an action of covenant. And, in general, where a party can obtain an inspection of documents in equity, this court will compel it in the progress of a cause. Under the statutes of set-off the defendant may be said to act at his peril, and no express jurisdiction is given to the court; and yet it is the constant practice to order amended particulars of set-off. But the proviso in s. 5 of the late patent act, seems to point expressly to a discretion in the court.

Here, the first notice of objections was altogether illusory and vague, and gave no more information than the plea. The plaintiff was at all events entitled to know the names and addresses of the other persons besides Mann, who were alleged to have used the plaintiff's invention; otherwise, if the evidence as to

Mann were answered, the plaintiff might still be taken by surprise as to the others who were not named.

Sir F. Pollock and R. V. Richards, in support of the rule, argued, that to enforce those orders would be an unfair exposure of, and interference with, the defendant's evidence; that the jurisdiction of the court in controlling the proceedings in a cause, appeared by the year books to have commenced in the reign of Henry VII., when pleadings were *ore tenus*: the court then compelled a defendant to produce a document; but that was a usurpation which the court would not now be disposed to extend; otherwise it might become impossible to draw a line. The court might be called on to order particulars of every plea that was pleaded; the time, place, and manner of *assault demesne*, and the details of the trading, debt, and act of bankruptcy, which the plaintiff's assignees must prove upon being required to do so. The defendant being precluded from giving evidence of any objection of which he has not given notice, the sufficiency of the notice will be determined at the trial. And as to the names and addresses of the other persons mentioned in the notice, the defendant may be able to prove that several persons have been seen using it, with whose names he is unacquainted. In *Crofts v. Peach* (b), in an action for the infringement of a patent, the court held, that the plaintiff could not be compelled to produce a specimen of the patent articles to enable the defendant to prepare his defence to the action. If these orders be enforced, it will rest with a judge at chambers, and not with the defendant, to say on what evidence he shall go to trial: he proceeds on notices given by the judge, and not on those for which the statute has made him responsible. The analogy of set-off has no application, for a set-off is a species of cross action, of which the party is bound to furnish all the particulars; and this is the first time that an order like the present has been made.

TINDAL, C.J.: This is an application to set aside two orders of a judge at chambers; one for further and better objections in answer to an action for infringement of a patent; that has been complied with, and therefore there is no occasion for setting it aside: the other, for the address of James Mann and other persons, who are alleged by the defendant to have used the invention before the plaintiff. To a certain extent, that order has also been complied with, for the address of James Mann has been furnished: to that extent, therefore, it is unnecessary to

(b) *Post* 268; but see *Perry v. Mitchell*, *post* 269. These two cases are, however, clearly distinguishable; the application in the former case was refused on the ground that the specification furnished the requisite information. In the latter,

the plaintiff sought information as to which of several inventions contained in the specification the infringements were alleged; but the court did not order specimens of his manufacture under those several parts to be furnished.

mind it; and the only question is, whether it should be re-
 ended as to the name and address of the other persons. I
 xede to the proposition, that the court has the right to model The court a
 right to model
 these proceed-
 ings under its
 general jurisdic-
 tion.
 as proceedings under its general jurisdiction; and I protest
 uinst the word usurpation, which has been employed on the
 t of the defendant. It is admitted by the learned counsel,
 t this jurisdiction was exercised in the reign of Henry VII.;
 as constantly been acted on ever since; and it is most bene-
 al to the parties, who would otherwise be driven to a court of
 nity. But looking at the words of the statute 5 & 6 W. 4,
 33, s. 5, I think it falls clearly within the same construction
 the statutes of set-off. I cannot see any objection to the
 rt's looking at notices delivered by the defendant, and de-
 mining whether or not they are sufficient. At the same time
 re is a generality in the words of the section, which leaves it
 to doubt, whether under the words "notice of objection" Doubtful whe-
 ther names can
 be required.
 lean require the defendant to furnish the names of those who
 l-egged to have used the plaintiff's invention. We shall
 refore rescind so much of the second order as requires the
 fendant to furnish the names and addresses of those other
 mons. The consequence will be that the judge at *nisi prius*
 ll admit or reject evidence as to those persons, according as he
 y deem it to fall within the terms of the notice or not; and
 on one of the parties will tender a bill of exceptions. I regret
 at the defendant declines to preclude this inconvenience, by
 mplying now with the judge's order.

VAUGHAN, J.: It is true that the order is new in specie; but
 fore the recent act and the new rules of pleading, the question
 is not likely to arise; because the defendant might give in
 idence whatever he pleased, under the general issue. I think The notice of
 objections
 meant to afford
 more specific
 information than
 the plea.
 e construction I put on the act was correct. It meant to
 ford the plaintiff more specific information than was given by
 e defendant's plea (c), and therefore, I think the present
 tice insufficient; for if the defendant fail as to the alleged user
 James Mann, he has only to resort to the others, as to whom
 e plaintiff must now be taken by surprise.

BOSANQUET, J.: I entertain no doubt as to the power of the The court may
 decide on the
 sufficiency of
 the notice. This
 power is not
 created by the
 statute.
 urt to decide on the sufficiency of these notices of objection.
 do not consider it to have been created by the late act of par-
 ment, but the fifth section of the act engrafts itself on the
 actice already existing. The practice as to notice of set-off is
 actly analogous. The defendant originally gave merely the
 ads of his set-off, which afforded the plaintiff little informa-
 on; the courts therefore required him to furnish such particu-

(c) Thus per Lord Abinger, C.B., the notice of objections is to apprise the plaintiff of what he has to meet, *ante* 203.

lars as should enable the plaintiff to understand what was to be proved at the trial; not indeed to lay open his case, or the evidence by which it was to be supported, but give a reasonable account of the nature of the transaction. I have no doubt, therefore, of the power of a judge to order a further notice of objections: but I think the order goes too far in requiring the names of all the others, who are alleged to have used the invention. *Andrews v. Bond* (8 Price, 213, 538) is in point. There the plaintiff had been nonsuited, on the ground that a notice of set-off had given sufficient information of the sum intended to be set-off against the demand, and that the defendant was not precluded by his particular of set-off from entering into proof of a counter demand not stated there; that nonsuit was afterwards set aside, and the court, considering that he was precluded, granted a new trial.

COLTMAN, J.: As far as the jurisdiction of the court is concerned, I think this question must be decided on the same principle as questions under the statute of set-off. The recent statute, no doubt, requires a pretty full notice to restrain the generality of a defence; but, perhaps, it would be throwing too great a difficulty on the defendant to require him to disclose the name and address of all persons who are alleged to have been seen using the plaintiff's invention. To that extent, therefore, I think the judge's order should be rescinded.

Rule absolute accordingly.

June 13, 1838.

FISHER v. DEWICK.

[4 Bing. N.C. 706.]

A particular of objections delivered by the defendant in an action for infringing a patent right, must be precise and definite. It is not sufficient to say that the improvements, or some of them, have been used before; the defendant should point out which.

To an action on the case for infringing a patent obtained by William Sneath, and assigned to the plaintiff, for the manufacture of bobbin net lace, the defendant pleaded, First, not guilty. Secondly, that W. Sneath, in the declaration mentioned, did not, by an instrument in writing, under his hand and seal, particularly describe and ascertain the nature of his alleged invention. Thirdly, that the said alleged invention was not an improvement in such machinery for making bobbin net lace. Fourthly, that he was not the true and first inventor of the alleged improvements in the machinery. Fifthly, that the alleged invention was of no use, benefit, or advantage to the public whatsoever. Sixthly, that the alleged invention was not, at the time when the letters' patent were granted, a new invention. Seventhly, that W. Sneath did not assign, transfer, and set over unto the plaintiff all that his said alleged invention, and also the said letters patent.

The defendant delivered the following particular of objections: T. T., 1838.

1. That the grantee of the said patent was not the true or first inventor of the whole, or any part of the improvement or improvements described in the declaration, letters patent, specification, or either of them. 2. That the improvements alleged to have been invented by the said W. Sneath were not invented by him. 3. That the said improvements were not, at the time of the granting of the letters patent, nor was any part thereof, new. 4. That if any part thereof were new, the same was useless or unnecessary, and not the ground of any patent at all; and therefore ought not to have been described in the specification as part of the said improvements. 5. That the specification did not describe with sufficient certainty and precision the nature of the supposed improvements, or the manner in which they were performed; and particularly that they were not applicable to every sort and description of the machinery to which in the specification they were said to be applicable. 6. That the said improvements, or some of them, had been publicly and generally used long before the granting of the said letters patent. 7. That the alleged improvements, and the means of enabling the public to avail themselves of them, were so imperfectly described in the specification, or instrument in writing in the declaration mentioned, that a machine could not be made by the description in the specification, to produce the kind of lace herein mentioned. 8. That it was stated in the said specification, that the said improvements were applicable to machinery for making bobbin net lace, whereas there were several machines for making bobbin net lace, to which there was no adaptation of the alleged improvements stated or set out in the specification, and to which those improvements could not be applied by the means, and in the manner, stated in the specification. 9. That the said letters patent, as appeared by the title thereof, was granted to the said W. Sneath, for having invented certain improvements in machinery for the manufacture of bobbin net lace, whereas the said specification did not show any improvements in such machinery for the making bobbin net lace. 10. That the machinery for making bobbin net lace was complete in itself, and not improved by any part of the inventions for which the said letters patent were granted. 11. That such of the machinery as was set out in the said specification as applicable to the manufacture of bobbin net lace was not new, but was in general use before the date of the letters patent. 12. That the invention for which the said letters patent were granted was more extensive than that shown in the specification. 13. That the invention described in the said letters patent did not correspond with the invention described in the said specification. 14. That the said W. Sneath claimed as his invention those parts

Notice of objections.

only of the machine which were described in the said specification by numeral figures, whereas many of the parts which were noted by letters in the said specification must form part of his alleged invention, or the same would be incomplete. 15. That many directions were inserted in such specification which were altogether useless, and only tended to mislead. 16. That the alleged invention was not an improvement, and ought not to be the subject of a patent. 17. That should the said alleged invention, or any part thereof, be an improvement, the same was not of sufficient consequence to be the subject of a patent. 18. That a certain part or parts of the said alleged invention had been, before the date of the said letters patent, combined and in common use, both severally and together. 19. That the description of certain parts of the said alleged improvement, as set forth in the said specification, and the description thereof as set forth in the plans thereto annexed, were at variance with each other, and did not correspond. 20. The defendant would further show all such objections to the said patent and the specification mentioned in the declaration, as should be considered by the court to be admissible under the pleas, and whereof the pleas themselves were sufficient notice (a).

The plaintiff objecting to these particulars as too general, and as giving no more information than the pleas, obtained a judge's order for further and better particulars; which order—

Wightman obtained a rule *nisi* to rescind, contending that to require particulars more specific would be to compel the defendant to disclose the whole of his case; and that the legislature, in passing the statute 5 & 6 W. 4, c. 83, s. 5, which directs these particulars to be furnished, never intended to proceed to such an extent.

Wilde, Sergt. and *Hoggins*, who showed cause, argued that these particulars, giving no explanation of the defendant's objection to the patent, were an evasion of the statute. The statute meant that the particulars should at least afford more information than the plea; and the defendant ought to specify what parts of the invention were, as he alleged, useless and unnecessary; which of the improvements had been used before, and where; *Bulnois v. Mackenzie* (b). A mere literal compliance with the statute was not sufficient; the compliance must be in a spirit of apprising the opposite party what was the real objection meant to be relied on, as in notices under statutes for the protection of magistrates, commissioners, dock companies, and the

(a) The above twenty particulars are extremely vague, furnishing no information as to the real objections on which it was intended to rely. The amended particulars, delivered in pursuance of the judge's order, stated with great minuteness of detail the particular parts of the invention, as de-

scribed in the specification, alleged to be old or useless; the name and address of the parties said to have used the parts alleged to be old; and the kind of machines to which the said improvements were alleged to be inapplicable.

(b) *Ante*, 260.

like (c). These particulars, as they stood, were calculated to mislead rather than to assist the plaintiff.

Wightman, in support of the rule. Before the new rules the defendant, in cases like the present, pleaded the general issue, and the plaintiff never knew what objection would be taken to his patent. The object of this statute was to apprise him of the general nature of the objection, whether it was to the invention, or parts of it, or to the specification; but it was never intended to call on a defendant to disclose the particulars of his defence; and if the present order be sustained, applications of the same kind will be interminable. There is no instance of an order to amend notices of action; whether the notice is sufficient for the evidence which the plaintiff proposes to adduce, is always a question for a judge *at nisi prius*. In *Bulnois v. Mackenzie*, the particulars were amended to a very small extent.

TINDAL, C. J.: I think this rule must be discharged. The question is, whether on this particular of objections the matters alleged are so uncertain and indefinite, that they are calculated to mislead rather than to assist the plaintiff. The object of the statute was not, indeed, to limit the defence, but to limit the expense to the parties, and more particularly to prevent the patentee from being upset by some unexpected turn of the evidence. Under the fifth section, therefore, it was intended that the defendant should give an honest statement of the objections on which he means to rely; and I am not afraid of the prolixity which has been deprecated by the party applying for this rule, for defendants would soon find it better to go to the jury on the points on which they meant to rely, than to seek to mislead their opponents. The present particulars are so vague, that they can scarcely have been furnished with any other object. For instance, the objection, "That if any part be new the same is useless and unnecessary:"—the defendant should have pointed out what part. "That the improvements, or some of them, have been used long before:"—the defendant should have pointed out which. If he would, in the Scotch phrase, condescend upon the parts to which he objects, there would be an end of the difficulty.

PARK, J.: The protection of the patentee was the object of the statute, and particulars so general as these afford him no assistance.

VAUGHAN, J.: The object of the statute was to limit the expense of actions, and let the patentee know what objection he had to meet. These particulars are an evasion.

(c) Also under the bankrupt act, 6 G. 4, c. 16, s. 80; *Trimley v. Unwin*, 6 B. & C. 537; *Moon v. Raphael*, 7 C. & P. 115, and 2 Scott, 492; where it is held that a general notice of intention to dispute the bankruptcy is not sufficient; but

with respect to the notice under the 5 & 6 W. 4, c. 83, s. 5, it is held that any objection may be taken at the trial which is within the terms of the notice. See *post*, in *Neilsen v. Harford*, 332 and 352.

The object of the statute not to limit the defence, but the expense, and to prevent surprise.

COLTMAN, J.: I am of the same opinion. It is incumbent on the court to see that the objections are stated in a clear and intelligible form, before the parties go down to trial; the patentee may not be taken by surprise. The defendant is not precluded from bringing forward any number of objections, but he must state with precision what they are.

Rule discharged

Other cases.
E.T., 1836.

CROFTS v. PEACH.

[2 Hodg. 110.]

In an action for infringement of the plaintiff's patent for making lace by machine, the plaintiff will not be compelled to produce a specimen of the patent articles to enable the defendant to prepare his defence to the action. This was an action brought against the defendant for infringement of the plaintiff's patent for making lace by machine. *Wightman* applied for an order to compel the plaintiff to produce to the defendant a specimen of the patent lace, which was produced by the plaintiff's machinery. The 5 & 6 W. 4, was passed for the purpose of giving certain privileges to patentees, and by section 5 the defendant is required to give the plaintiff notice of the objections on which he intends to rely at the trial of the action. It may be necessary for the defendant to prove at the trial, that the plaintiff's invention is not infringed, and unless he is furnished with a specimen of the lace

(d) *Notice of Objections.*—The effect of the two preceding decisions is somewhat different; the objections in both cases relate to the plea, that the invention is not new as to the public use and exercise thereof; the former, *Bulnois v. Mackenzie*, referring to the names and addresses of the parties by whom the alleged use and exercise had taken place; the latter, *Fisher v. Dewick*, referring principally to the parts of the invention alleged to have been so used. There is a great distinction between the two cases; and with respect to the former, the practice of the courts is not very settled, varying with the circumstances of the case; but with respect to the latter, and to the objections to the specification, the courts have required great particularity.

In a recent case (*Galloway v. Bleaden*), Coltman, J., ordered names, addresses, and descriptions to be given, and the words "divers other persons" to be struck out. Chit. Arch. 1031; but in a subsequent case (*Carpenter v. Walker*), the objection stated the making of locks similar to the subject of the patent by the defendant and others, several years before the date of the letters patent, and their sale to divers persons, and among others to one S. T., of, &c. On summons to strike out the words "to divers persons, and among others," or to state the names and descriptions of the others besides S. T., to whom sales were made, the parties were referred to the court, who refused the application.

In a recent case (*Walton v. Bateman*), Cresswell, J., intimated a very strong opinion that the notice should specify the pleas to which the objections were intended to apply. It certainly

would be convenient that they should be so arranged with reference to the pleas. They thus generally be referred to three heads: the grantee was not the true and first inventor; 2. That the invention was not new as to use and exercise. 3. That the specification did not particularly describe and ascertain the nature of the said invention, and in what manner the same is to be performed. The evidence in the first of these generally consists of the prior publication of some prior patent, or a well-known work containing the invention, thus proving the patentee not to be the first inventor, such prior publication showing one else to have that character. Notice of objection seldom specifies these, but are drawn to admit them—the consequence is, that they are taken by surprise, and fail; whereas had been apprised of such sources, they never have gone to trial. This is a class of cases in which the greatest particularity is required without any prejudice to the defendant with a great saving of expense to the plaintiff. The case, however, has yet occurred, in which notice has been before the courts. The cases under this and the next head are generally mixed, that unless the salutary suggestion above learned judge be adopted in practice, the question is not likely to arise. Defendants are not to be prejudiced, since the statute prevents their giving notice of any additional defence or evidence of any kind, which may unexpectedly be discovered after the notice of objections has been delivered. See section of the Act ante 260, n. a.

is difficult to obtain the necessary evidence. The specification was not filed until September, 1835, so that the article is commonly known.

DAL, C. J.: The effect of this application is to ascertain evidence which the plaintiff will produce at the trial. The defendant may plead that the invention is not new, if that is the case. The specification gives the necessary information.

BLACK, J., VAUGHAN, J., and BOSANQUET, J., concurred.

Rule refused.

PERRY v. MITCHELL.

In the Exchequer, M.T., 1840.

There was an action for the infringement of two letters patent, Particulars of
dated 28th of January, 1832, and 19th of November, 1833, for infringements
inventions in pens, and the specification set forth and defined in certain cases.
thirteen different pens, containing an indefinite number
of adjustments. The declaration assigned as breaches,
making, &c., pens and nibs, in imitation of parts of the
invention, with divers additions thereto, and subtractions
therefrom.

The defendant, on affidavit of the above circumstances, and that inasmuch as neither the parts nor the additions or subtractions were mentioned, it would be impossible to prepare a list of objections to be delivered with the pleas, or to know what evidence to adduce, obtained a rule calling on the plaintiff to show cause why the plaintiff should not deliver particulars in support of the infringements on which it was intended to rely, and specify and point out the particular pens shown in the diagrams annexed to the specification, in respect of which such infringements had taken place.

F. Pollock showed cause, and cited *Crofts v. Peach* (a).

The Court of Exchequer made the rule absolute, and ordered the plaintiff to give particulars by the number of the pens on which the infringements were alleged. The following notice was given accordingly: "The pens to which the declaration in this cause refers, and the numbers of such pens in the specifications referred to in the declaration, are as follows:—(setting forth the names and figures of the diagrams (b)).

note 268.

The circumstances of the two preceding cases are very different, and it should be remarked

that the applications are not in pursuance of any statute, but to the general jurisdiction of the court.

M. Vac., 1839.

GILLETT AND ANOTHER v. WILBY.

[9 Car. & P. 334.]

To an action for the infringement of a patent for certain improvements in a cabriolet, three pleas were pleaded:

1st, the general issue; 2d, that the alleged improvements were not new; and 3d, that the plaintiffs were not the true and first inventors of the improvements: Held, that on this state of the pleadings it could not be contended, that the patent was illegal.

Also, that though all the improvements claimed must be shown to be new, yet it need not be shown that the defendant's cabriolet was an imitation of the whole of them, but an imitation of one was sufficient to maintain the action. Also, that the validity of the patent might be considered as having come in question under the 2d plea, so as to entitle the plaintiff to a certificate to that effect, under the 3d section of the stat. 5 & 6 W. 4, c. 83.

The plaintiffs in their declaration complained of an infringement by the defendant of a patent they had obtained for certain improvements in a cabriolet. The pleas were, First, the general issue; secondly, that the alleged improvements were not new; and thirdly, that the plaintiffs were not the true and first inventors.

The allegation in the declaration was, that the defendant unlawfully, &c., did use and put in practice one of the said description of vehicles, called cabriolets, with the said improvements and that the cabriolet so used by the defendant did imitate and resemble the said improvements.

The patent and specification were put in, from which it appeared that there were five different things which the plaintiffs claimed as their invention.

Ball, for the defendant, was contending that the patent was illegal.

M. D. Hill, for the plaintiffs, objected to this line of argument, on the ground that there was not an issue to which it could apply.

COLTMAN, J.: If such a defence were intended to be relied on, it ought to have been specially pleaded.

Ball submitted that under the statute (a) it was sufficient to have given the notice of the objection, which the defendant in this case had done.

COLTMAN, J.: That is not sufficient.

Ball then contended, that the plaintiffs must show, under the words of the declaration, that the defendant's cabriolet imitated and resembled all the improvements. [*Coltman, J.*: It will be sufficient if it resembled any one. It is a divisible statement.] In *Morgan v. Seward* it was held, that if a patent be for several improvements, and the jury find one of them not to be such, the patent is void altogether. I contend that every part must be new, or it is void altogether.

COLTMAN, J., in summing up, said:—The defendant's first plea is, that he is not guilty of the infringement. The question upon this will be, whether the cabriolet was used by the defendant, and whether it is an infringement of the patent right. The second plea is, that the improvements claimed are not new; and the third, that the plaintiffs were not the true and first inventors of them. On the first point the patent is put in,

(a) 5 & 6 W. 4, c. 83, s. 5. See section, ante 260, n. a.

which it appears that the plaintiffs claim not only the seat M. Vac., 1839. . . but the mode of entry in front, &c. It is true that the . . . must make out to your satisfaction that the whole of . . . movements were new, and that some of them have been . . . It is not necessary that they should all have been used, . . . must be shown to be all new, and if they are all new, and . . . defendant has infringed any one of them, it will be sufficient . . . port the action, and it is not necessary that he should have . . . d them all. There are five different points in which the . . . claim the invention as new, and if you are satisfied of . . . en on the other point there is no evidence that they . . . t the first inventors, and then will come the question, . . . the defendant has infringed any part of that which the . . . s claim as new. Verdict for the plaintiffs.

. *Hill* applied for a certificate, under the 5 & 6 W. 4, . . . 3 (b), that the validity of the patent came in question. . . MAN, J.: I think you are entitled to the certificate. . . objected, that he was not allowed to question the validity . . . atent.

MAN, J.: I think that the validity of the patent has in . . . me in question, under the plea that the invention was . . . But I will look further into the subject.

The certificate was afterwards granted.

GILLETT v. GREEN.

H. T., 1841.

[7 M. & W. 347.]

tely moved for a rule, calling upon the defendant to show An action on the case for the infringement of why the master should not tax the plaintiff his treble a patent, is with- pursuant to the statute 5 & 6 W. 4, c. 83, s. 3. This

the following is the section: "And be it . . . hat if any action at law, or any suit in . . . an account, shall be brought in respect . . . ed infringement of such letters patent, . . . or hereafter granted, or any *scire facias* . . . uch letters patent, and if a verdict shall . . . e patentee or his assigns, or if a final de- . . . cretal order shall be made for him or . . . n the merits of the suit, it shall be lawful . . . dge before whom such action shall be . . . ertify on the record, or the judge who . . . e such decree or order, to give a certifi- . . . his hand, that the validity of the patent . . . uestion before him, which record or cer- . . . ing given in evidence in any other suit or . . . atever touching such patent, if a verdict . . . , or decree or decretal order be made in . . . such patentee or his assigns, he or they . . . ive treble costs in such action, to be . . . three times the taxed costs, unless the . . . king such second or other decree or

order, or trying such second or other action, shall . . . certify that he ought not to have such treble . . . costs."

This section is repealed by 5 & 6 Vict. c. 97, . . . entitled, "An act to amend the law relating to . . . double costs, notices of action, limitation of actions, . . . and pleas of the general issue, under certain acts . . . of parliament." The certificate, however, will still . . . be necessary, in order to entitle the party to the . . . full and reasonable indemnity preserved to him by . . . s. 2 of the last-mentioned act, which is as follows: . . . "And be it enacted, that so much of any clause, . . . enactment, or provision, in any public act or acts, . . . not local or personal, whereby it is enacted or . . . provided that either double or treble costs, or any . . . other than the usual costs between party and party, . . . shall or may be recovered, shall be, and the same . . . are hereby repealed: Provided always, that in- . . . stead of such costs, the party or parties heretofore . . . entitled under such last-mentioned acts to such . . . double, treble, or other costs, shall receive such

NEILSON'S PATENT.

Letters patent, 11th Sept. 1828, to J. B. Neilson, "for the *Title.*
 improved application of air to produce heat in fires, forges,
 and furnaces, where bellows or other blowing apparatus are
 required."

I, the said James Beaumont Neilson, do hereby declare that *Specification,*
 the nature of my said invention for the improved application *28th Feb. 1829.*
 of air to produce heat in fires, forges, and furnaces, where
 bellows or other blowing apparatus are required, and the man-
 ner in which the same is to be performed, is particularly
 described and ascertained as follows: that is to say, a blast or
 current of air must be produced by bellows or other blowing
 apparatus in the ordinary way, to which mode of producing the
 blast or current of air this patent is not intended to extend.
 The blast or current of air so produced, is to be passed from
 the bellows or blowing apparatus into an air vessel or receptacle
 made sufficiently strong to endure the blast, and through or
 from that vessel or receptacle by means of a tube pipe or aper-
 ture into the fire, forge, or furnace. The air vessel or receptacle
 must be air-tight, or nearly so, except the apertures for the
 admission and emission of the air, and at the commencement
 and during the continuance of the blast it must be kept arti-
 ficially heated to a considerable temperature. It is better that
 the temperature be kept to a red heat or nearly so, but so high
 a temperature is not absolutely necessary to produce a beneficial
 effect. The air vessel or receptacle may be conveniently made
 of iron, but as the effect does not depend upon the nature of
 the material, other metals or convenient materials may be used.
 The size of the air vessel must depend upon the blast and on
 the heat necessary to be produced. For an ordinary smith's fire
 or forge, an air vessel or receptacle capable of containing twelve
 hundred cubic inches will be of proper dimensions, and for a
 cupola of the usual size for cast iron founders, an air vessel
 capable of containing ten thousand cubic inches will be of a
 proper size. For fires, forges, or furnaces, upon a greater
 scale, such as blast furnaces for smelting iron and large cast
 iron founder's cupolas, air vessels of proportionably increased
 dimensions and numbers are to be employed. The form or
 shape of the vessel or receptacle is immaterial to the effect, and
 may be adapted to the local circumstances or situation. The
 air vessel may generally be conveniently heated by a fire, dis-
 tinct from the fire to be affected by the blast or current of air,
 and generally it will be better that the air vessel and the fire by
 which it is heated should be enclosed in brick-work or masonry.

through which the pipes or tubes connected with the air should pass; the manner of applying the heat to the air is, however, immaterial to the effect, if it be kept at a temperature.

In witness,

In the subsequent proceedings on the above, as well as on Crane's patent, the following inventions relating to the application of air to furnaces are frequently referred to:—

Botfield's Patent.

Letters patent, 2d January, 1828, to Thomas Botfield, for "certain improvements in making iron, or in the method or methods of smelting and making iron."

Specification.—"I, the said Thomas Botfield, do hereby declare, that the following is a particular description of the nature of my said invention, and methods and improvements in the smelting and making of iron, both in respect to principle, and the way and manner in which the same may be performed; that is to say, the principle is for causing or obtaining a blast of atmospheric air sufficient to smelt, fuse, run, or make pig, cast, or crude iron, from iron-stone or ore. This blast is to be produced by means of rarefied air, gas, flame, or heated air, from an oven, or fire-place, and is to be applied in, or to, a blast furnace, cupola, or air furnace; this I propose to effect by the draught of a powerful chimney or chimneys, which may be built separate, at any distance that may be most convenient, or may join to, or be made part of, the blast furnace or cupola, as may be found most desirable, and best to answer the purpose required, and which is to be connected by a flue or flues with the cupola, blast, or air furnace; but in case this draught should not prove sufficient for the purpose of smelting the iron-stone or ore, I propose and intend to apply and use the common blast from machinery to assist the blast from the draught of the chimney; this is to be used at the same or any other twine. And I claim a right, and mean to use the atmospheric air, either separate, or mixed with gas, flame, or heated air: I also claim as part of my patent, the right to use and mix (with other materials) rock salt, common refuse or other salt, in any state or degree of refining, or any other substance of which soda (the mineral alkali) forms a part: this is to be mixed in the blast furnace, cupola, or air furnace, with the iron-stone or ore, and with the other usual materials of coke, or charcoal, and limestone, to which clinder (produced in the processes of converting pig, cast, or crude iron into malleable iron) may be added. And I propose to mix the salt or other substance containing soda in such proportions as I shall find necessary to cause the iron-stone, or ore, to melt or fuse sooner, or with less blast, fuel, or heat. Now I do hereby declare, that the before-mentioned principles comprehend the real object of my patent; and in order for the better understanding the method or methods in which the aforesaid may be reduced and applied to practical use, I wish it to be understood, that although I may vary the mode, way, and manner by a variation of applications to produce the said effects, and maintain the main purpose intended, as circumstances may require, yet I principally propose to adhere to the method or methods herein de-

scribed, which may be understood from the drawing and description thereof."

The specification then describes the (which shows a tall chimney on one side ordinary blast furnace, and connected with flues at the top and at the bottom; on the side an oven or fire-place, with a flue to a air from the oven or fire-place to the two a passage along the top of that flue for the spheric air to the twine; the top of the furnace was provided with a cover, to be when the furnace was charged:—and proceeds as follows:

"And I do hereby declare that the blast furnace, cupola, and oven, chimney or chimneys, may be built, or made, of any height, shape, form, or size, be found most suitable to the materials to be smelted, and be connected by flues in and may be constructed of any materials which may be found best suited for the purpose. And I further declare, that to use coal, coke, stone, coal culm, wood, coal, or any other kind of fuel or fuels, bination of fuel, in any proportion or proportions that may be found sufficient best adapted to produce the main object I claim as my patent the use of the chimney or chimneys, and the application of rarefied air, gas, flame, or heated air, to, at, or wire or twines of the blast furnace, or to cause or assist the blast of atmospheric air. I also claim, as part of my patent, the use of any other substance containing soda with the iron-stone, or ore, and other materials the blast, cupola, or air furnace, to cause materials to melt or fuse sooner, or with less blast and fuel. But I do not claim my patent the use of salt in any part of the process of making bar, wrought, or malleable iron, from pig, cast, or crude iron, but the use of salt, or any other substance containing soda, in making pig, cast, or crude iron-stone or ore." In witness, &c.

The object of the above invention was to be the obtaining, by means of the chimney, the hot air from the oven, such a draught render the ordinary blowing apparatus necessary. It was contended, in argument in the subsequent proceedings, that the above was the application of hot air to a blast furnace, that Neilson's patent would consequently be excepted as for the particular mode, or improvement on Botfield's. In the course of the argument, Lord Cottenham, L. C., remarks, "It appears to me, that Mr. B., though he uses hot air, uses it for the purpose of the draught, not for any chemical purpose the air might have. It leads rather to the conclusion, that at that time the advantage was not known, at all events not known or otherwise he would have specified it."

of facts, the question arises, whether the use of air in a blast furnace for such mechanical purposes would in law vitiate a subsequent invention of its use for a chemical purpose.

See *per* Lord Denman, C.J., *ante* 140; 156, n. c. and *post* 280, n. d.

Devaux's Patent.

A patent, 8th October 1836, to Charles Devaux, for "certain improvements in iron-stone, or iron ore."

Statement.—"The improvements relate to the new arrangement of certain apparatus between the ordinary blowing machine and the furnace which contains the iron-stone or iron ore to be smelted, whereby the blast of atmospheric air so forced through the ordinary blowing machine, and amongst the fuel in the furnace, is forced through and amongst the fuel in the furnace in such superadded apparatus, and the atmospheric air so forced supports the fire in such furnace, becomes heated, and in the furnace decomposed, and is thence constantly renewed by the pressure of the condensed apparatus (carrying with it the gas and vapours evolved by the fuel in the furnace) into, and a heated and gaseous blast to the ordinary apparatus containing the iron-stone, or iron ore, great improvement will take place in the process of smelting iron-stone or iron ore, as above described."

The apparatus is then described, and referred to Neilson's invention as "an apparatus for heating atmospheric air in its progress from the blowing machine to the furnace containing the iron ore; but in such apparatus the atmospheric air did not pass into and amongst the fuel contained in a closed fire-place as in the above, but such atmospheric air was its being driven or forced through vessels from without, the vapours and gas evolved by the fire by which such vessel is heated pass into the furnace containing the iron ore." The statement also refers to Botfield's patent, and "I do not claim as new the application of air combined with gas or vapours by a fire, unless the operation be performed by an apparatus constructed by forcing the fire which heats it; but I do claim the constructing and using an apparatus of the like nature as that above described between the blowing machine and the furnace containing the iron ore or iron-stone to be smelted in such manner that the blast proceeding

from the blowing machine shall pass into and amongst the ignited fuel, and support combustion in a closed fire-place, and from thence the heated and partly decomposed air from therein, by the pressure of the continued working of the blowing machine urged onwards (carrying with it the gas and vapours evolved by the ignited fuel) into the furnace containing the iron ore or iron-stone; by which means much saving in fuel, in addition to other advantages, will be obtained in the smelting of iron ore or iron-stone, such apparatus being so arranged as to admit of a man managing the fire during the time that condensed air is being forced through the fire-place, as above described." In witness, &c.

The latter invention being subsequent to that of Neilson's, could not affect his right, but it is important, as showing the history of the invention, and was referred to in the proceedings on Crane's patent, *post*. It should also be observed, that as it is an essential feature of this invention, that all the air should be heated by actual contact with the fire, it would be deprived of all its oxygen, so that the chemical effect in the furnace of this air would be very different from the effect of air so heated on Neilson's plan.

Three other inventions were referred to as applications of heated air. Sadler's, in 1798, for disengaging oxygen gas, and applying it to the best advantage. He remarks, that the first effect of bringing cold oxygen in contact with a combustible body at a high temperature, must be to reduce the intensity of combustion; and he proposes an arrangement for heating the oxygen, and applying it so heated. It refers to experiments in the laboratory, not to manufactures.

Chapman's, in 1825, for consuming the smoke of steam boilers. He excludes all cold air from the furnace, and heats the admitted air by making it pass along the interior of the bars of the grate, which are cast hollow for the purpose.

Stirling's patent, in 1817, for diminishing the consumption of fuel. His invention relates, firstly, to certain arrangements for heating and cooling liquids, airs, or gases, and other bodies, by abstraction of heat from one portion of such liquid, &c., and communicating it to another; and, secondly, to obtaining a new motive power. He does not propose to blow heated air into furnaces, but the air enters in the ordinary state of the atmosphere.

None of these appear to have succeeded in practice.

NEILSON & OTHERS v. THOMPSON & FORMAN.

Cor. Sir L. Shadwell, V.C. Dec. 24, 1840.

In-Chancery.

filed 3d Dec., 1840. The bill stated the grant of the patent, the enrolment of the specification, the partnership between the plaintiff and certain persons; that the defendants, carrying on the business of iron masters at, &c., in the year 1839, had used the plaintiff's invention, and by and with the aid of the same had smelted large quantities of iron; the plaintiffs

Bill.

being willing to permit them to make a trial of the benefits of the said invention before they should be called upon to pay for the use thereof, allowed the defendants to try the said invention; that the said defendants did so accordingly, and having found the same to be advantageous and beneficial, continued the use thereof hitherto; that after the defendants had had a fair and sufficient trial of the said invention, the plaintiffs expected the defendants would make the plaintiffs the same payments for the use thereof, which plaintiffs have demanded and received from all other persons using the same, viz. one shilling per ton; that it was fully understood by plaintiffs that defendants would make such payments accordingly, and would take a license under seal from plaintiffs, upon the terms granted to other persons; that no license was in fact taken. That plaintiffs have called on defendants for an account of the iron smelted by the use of the said invention, that plaintiffs and defendants might arrange the sum payable, and have frequently requested the defendants to pay the one shilling per ton, but that defendants, under various pretences, have evaded complying with the said request, and have not paid any sum in respect of such use of plaintiffs' invention, and although plaintiffs have given notice to defendants to desist from using the said invention, they persist in using the same.

The bill prayed an injunction to restrain the defendants from any further using or exercising of the said invention, or from smelting or causing to be smelted any iron whatever, by the use of, or on the principle of, the said invention, or any part thereof, or otherwise, in infringing the said patent, and from selling and disposing of any iron so smelted during the term thereof.

Affidavits.

There were affidavits by Mr. Neilson, verifying the statements in the bill (a); by Mr. Mushett, verifying certain documents, and as to the said invention being in use at defendants' furnace; by Mr. Blunt, the plaintiffs' solicitor, stating the preparation and granting of between fifty and sixty licenses by plaintiffs to iron masters, and the payment of one shilling per ton; also various infringements by parties in 1832, who submitted and took a license on proceedings being commenced against them; and among others the Dowlais Company, in 1836, began to use the invention, and an injunction having been obtained, agreed to take a license, and paid the license dues for all iron made up to June, 1839, but refused to pay the license dues since that period, and that an action was pending against them.

(a) The affidavit did not state his belief at the time of swearing it, that he was the true and first inventor, or that the invention was new at the time of the granting the letters patent. This omission was urged as an argument against granting the injunction, but it was said in reply

that this was not necessary in applications for an injunction upon notice; the doctrine of Lord Eldon, L.C., in *Hill v. Thompson*, ante 231, applying only to cases of application *ex parte* for an injunction. See *Law and Practice, Inj.*, 2d. Affidavits, and post 279, n. b.

Other affidavits set forth the number of parties who were paying license money.

For the defendants, the affidavit of Mr. Thompson stated his partnership in the Pendarran Works; that in 1838 they began erect the necessary works for heating one blast furnace with hot air, and in 1839 for a second; that Neilson's mode, as ascribed in the specification, was a failure, and that a different mode was adopted by most of the iron masters in Scotland. That use of hot air in blast furnaces was known before the date of the patent, and used by Botfield and others; that the patent is disputed in Scotland, and that those persons who had taken licenses from the patentee had been greatly hampered thereby; that he received information from Scotland, that Neilson's invention had been used by a smith for eight or ten years ago. The affidavit then described the mode used by the defendants, and stated it to be substantially different from that described by Neilson.

24th Dec., 1840. *Knight Bruce, Jacob, and Campbell*, having been heard for the injunction; *Wigram, Richards, and Roupell*, against it—

Sir L. SHADWELL, V.C.: It seems to me, on these affidavits, that it is sufficiently made out that there has been a use of the patent in this sense, that the right of the patentee to the benefit of the patent has been submitted to where there has been a contest, and it does not at all appear to me that the general way in which the defendants on their affidavit state the mode by means of which the plaintiffs succeeded in establishing the patent, is at all an answer to the two cases which are stated in Mr. Blunt's affidavit. Then I have the use of a patent having been obtained in the year 1828, and actually enjoyed by the patentee for upwards of twelve years. *Prima facie*, I apprehend that gives a right to the patentee to come into court in a case in which he can show an infringement; and the question is, has there been an infringement? Now, I do not mean to give any opinion upon the validity of the patent in the abstract; but it is plain to me, upon the specification, and upon the patent as stated in the plaintiffs' affidavits, that the patent is taken out for the invention of the application of hot air to furnaces; but inasmuch as the terms of the patent required that there should be a specification of what the invention was, and of the manner in which it was used, thereby the consequence follows that the specification commenced in these words,—I hereby declare, that the nature of my said invention is the improved application of air to produce heat in fires and stoves, and so on, and the manner in which the same is to be performed, is particularly described,—and then he goes on to state what it is, and the thing seems simple enough. The invention, I understand it, is the invention of driving hot air on the

Enjoyment for 12 years a *prima facie* case for an injunction, if an infringement be shown.

furnace. Now I have attended to the statement which is made in the defendants' affidavit, and I must say that it really does appear to me that their affidavit does represent that what they are doing is the thing which the plaintiffs claim as their invention. I am not now entering into the question whose invention it was, but substantially it appears to me that that which is claimed by the defendants is the thing which is in a general, simple, inartificial manner, disclosed by the plaintiff's specification, and although there seems to be a vast deal of improvement, according to what the defendants represent, in the mode in which they apply the air, with respect to the mode of bringing it into the furnace, and with respect to communicating the greater heat to it than it otherwise would have, according to the simple mode contained in the plaintiff's specification, my present opinion is, that their affidavit does amount to an admission that there has been an infringement; at least, quite enough for this court to act upon in this way, namely, that I think the court ought to grant the injunction, but put the plaintiffs on the terms of trying the question by bringing an action, which I think they are bound to do.

Order accordingly.

Neilson and Others v. Harford and Others.

v. Fothergill and Thompson.

v. Homfray and Thompson.

The principal facts of these three cases being nearly the same as in the preceding, the parties agreed that the same order should be made in all four cases. The circumstances peculiar to the second case will be seen in the report of the appeal before the Lord Chancellor.

The order in the principal case was made on the

24th of December, the day before the Christmas vacation, and the Lord Chancellor, under the peculiar circumstances of the case, that the defendants would be obliged to put out their blast furnaces, consented to hear the appeal on the 26th; but the case stood over, it being arranged between the parties, that the defendants undertaking to keep an account, the injunction should not be put in force until the appeal had been heard.

NEILSON & OTHERS v. THOMPSON & FORMAN.

Cor. Lord Cottenham, L.C. 21st Jan. 1841.

Motion to dissolve injunction.

This was an appeal to discharge the order of the Vice Chancellor. Several additional affidavits were filed on both sides. On the part of the defendants, stating that the apparatus made according to Neilson's directions did not succeed; that various experiments were made, and all the attempts before the syphon or arch pipes were not only unsuccessful, but injurious. That a person named Condie was the inventor of the present apparatus, now used so successfully. That the invention of Neilson is substantially the same as the prior one of Botfield, both in

principle and apparatus, and both totally useless. That the apparatus of pipes in use is altogether different from any thing described by Neilson, both in principle and construction. That many parts of Neilson's specification are false, and calculated to mislead. That defendants applied the hot air to one furnace in November, 1838, and to another in November, 1839, and that the cost for each furnace of the requisite apparatus is £750.

On the part of the plaintiffs, were affidavits by Neilson, stating his belief that he was the true and first inventor (b) of that for which the letters patent were granted, and which was described and claimed in the specification, and that air artificially heated while in current or blast had not been openly or publicly used prior to the date of the patent. That the invention was highly beneficial, and used by many iron masters under licenses. That no compromise ever took place on his part with any party except on the terms of paying one shilling per ton.

It was stated in other affidavits, that thirteen parties in Scotland and fifty-eight in England had taken licenses; that the inventions of Botfield and Neilson were totally and essentially distinct; the former being mechanical, or a method of creating a blast, by which the air was necessarily rendered unfit to support combustion—the latter being chemical (c).

Wigram, Richards, and Roupell, moved to discharge the order of the Vice Chancellor.

The utmost that the plaintiffs can ask, under the circumstances of this case, on the ground of the length of time which the patent has been in existence, is for an account, and this the defendants have always been ready to keep. The patentee does not in this case make his profit by selling the article, but by granting licenses to iron masters to use his patent on paying one shilling per ton on all the iron made. The defendants, until the validity of the patent was tried, ought not to be compelled either to pay the one shilling per ton, or to take a license, experience having shown that those persons who were so incautious as to pay the one shilling per ton, or to take a license, were very much hampered in case of the patent being disputed. The action at law will be tried as soon as possible, but the defendants ought not in the mean time to have any other terms imposed than the keeping the account, and the undertaking to pay one shilling per ton in the event of the title to the patent being established, because the apparatus described by the specification did not come

(b) As to the omission of this allegation on the application for the motion, *ante* n. a, p. 276.

(c) The peculiar nature of the invention, its utility, and a great variety of statements respecting the specification, and other matters, were set forth in other affidavits, but it is not necessary

here to advert to them. The form of license granted by Neilson was verified; it contained the usual clauses, with proviso for rendering it void in case of rent in arrear. See *Law and Practice*, Pr. F., XIX.

Argument to dissolve the injunction.

furnace. Now I have attended to the statement which is in the defendants' affidavit, and I must say that it really appear to me that their affidavit does represent that what are doing is the thing which the plaintiffs claim as their invention. I am not now entering into the question whose invention it is, but substantially it appears to me that that which is claimed by the defendants is the thing which is in a general, substantial, and inartificial manner, disclosed by the plaintiff's specification, although there seems to be a vast deal of improvement, according to what the defendants represent, in the mode in which they apply the air, with respect to the mode of bringing it into the furnace, and with respect to communicating the greater heat to it than it otherwise would have, according to the mode contained in the plaintiff's specification, my opinion is, that their affidavit does amount to an admission that there has been an infringement; at least, quite enough to induce this court to act upon in this way, namely, that I think this court ought to grant the injunction, but put the plaintiff to the terms of trying the question by bringing an action, and I think they are bound to do.

Order according

Neilson and Others v. Harford and Others.

_____ *v. Fothergill and Thompson.*

_____ *v. Homfray and Thompson.*

The principal facts of these three cases being nearly the same as in the preceding, the parties agreed that the same order should be made in all four cases. The circumstances peculiar to the second case will be seen in the report of the appeal before the Lord Chancellor.

The order in the principal case was made on the

24th of December, the day before the Christmas vacation, and the Lord Chancellor, under peculiar circumstances of the case, that the defendants would be obliged to put out the furnaces, consented to hear the appeal on the 26th; but the case stood over, it being agreed between the parties, that the defendants taking to keep an account, the injunction not be put in force until the appeal had been heard.

NEILSON & OTHERS *v.* THOMPSON & FORMAN.

Cor. Lord Cottenham, L.C. 21st Jan. 1841.

Motion to dissolve injunction.

This was an appeal to discharge the order of the Vice-Chancellor. Several additional affidavits were filed on both sides. On the part of the defendants, stating that the apparatus made according to Neilson's directions did not succeed; that various experiments were made, and all the attempts before the syphonic arch pipes were not only unsuccessful, but injurious. That a person named Condie was the inventor of the present apparatus, now used so successfully. That the invention of Neilson is substantially the same as the prior one of Botfield, but

principle and apparatus, and both totally useless. That the apparatus of pipes in use is altogether different from any thing described by Neilson, both in principle and construction. That many parts of Neilson's specification are false, and calculated to mislead. That defendants applied the hot air to one furnace in November, 1838, and to another in November, 1839, and that the cost for each furnace of the requisite apparatus is £750.

On the part of the plaintiffs, were affidavits by Neilson, stating his belief that he was the true and first inventor (b) of that for which the letters patent were granted, and which was described and claimed in the specification, and that air artificially heated while in current or blast had not been openly or publicly used prior to the date of the patent. That the invention was highly beneficial, and used by many iron masters under licenses. That no compromise ever took place on his part with any party except on the terms of paying one shilling per ton.

It was stated in other affidavits, that thirteen parties in Scotland and fifty-eight in England had taken licenses; that the inventions of Botfield and Neilson were totally and essentially distinct; the former being mechanical, or a method of creating a blast, by which the air was necessarily rendered unfit to support combustion—the latter being chemical (c).

Wigram, Richards, and Roupell, moved to discharge the order of the Vice Chancellor.

The utmost that the plaintiffs can ask, under the circumstances of this case, on the ground of the length of time which the patent has been in existence, is for an account, and this the defendants have always been ready to keep. The patentee does not in this case make his profit by selling the article, but by granting licenses to iron masters to use his patent on paying one shilling per ton on all the iron made. The defendants, until the validity of the patent was tried, ought not to be compelled either to pay the one shilling per ton, or to take a license, experience having shown that those persons who were so incautious as to pay the one shilling per ton, or to take a license, were very much hampered in case of the patent being disputed. The action at law will be tried as soon as possible, but the defendants ought not in the mean time to have any other terms imposed than the keeping the account, and the undertaking to pay one shilling per ton in the event of the title to the patent being established, because the apparatus described by the specification did not come

Argument to dissolve the injunction.

(b) As to the omission of this allegation on the application for the motion, *ante* n. a, p. 276.

(c) The peculiar nature of the invention, its utility, and a great variety of statements respecting the specification, and other matters, were set forth in other affidavits, but it is not necessary

here to advert to them. The form of license granted by Neilson was verified; it contained the usual clauses, with proviso for rendering it void in case of rent in arrear. See *Law and Practice*, Pr. F., XIX.

Argument to dissolve the injunction.

into use at all, but an apparatus essentially different came into use some years afterwards. If an injunction be granted in the mean time, and the patentee fail in establishing his title, the defendants will lose all the expense which they have been at in preparing the furnaces, whereas, if he succeed, the plaintiffs will be paid eventually.

It appears from the bill and the affidavits, that there was acquiescence for more than a year before the bill was filed; no agreement is stated, but simply acquiescence, in expectation that the defendants would pay on finding it answer. Supposing the patent good, there was no ground for a court of equity granting an injunction as the case stood upon the bill, namely, upon the expectation that a license would be taken. The case of a person making a patent article and selling that article is totally different from the present case, in which the profits arise entirely from the granting of licenses. In the former case irreparable mischief may be done, the party losing the benefit of the sale, and being liable to be prejudiced in his credit from the articles being of an inferior quality, so that the court may not be in a position to do complete justice to the patentee; but in the present case no injury can be done by requiring the patentee to establish his patent, an account being kept in the mean time, there being no doubt as to the abilities of the parties to pay. An expense of more than £5000 has been incurred by the plaintiffs' acquiescence in the erection of the works, and in cases of acquiescence the court will say keep an account, and the parties will be interested in trying the question at law with despatch.

The extraordinary relief of an injunction will not be granted to a patentee unless he states distinctly what he claims, whether for a principle or a method; if the specification be obscure in this respect, the court will not interfere until the question has been decided at law. The specification mentions two things, the use of hot air for smelting, and the apparatus; in respect of both the patent is bad. The use of hot air in furnaces was known to others, and Botfield's patent was taken out for the express purpose of applying hot air; so that the application of heated air to a furnace was certainly known at the time of Neilson's patent, the only difference being, that Neilson calls that a receptacle which Botfield calls an oven (*d*). But sup-

(*d*) See *ante*, 274, n.

The objects of these two inventors, or the ends to be attained by the inventions, are clearly distinct. That air had been applied in a heated, as well as in its natural atmospheric state, to different kinds of fires and furnaces, under certain circumstances and conditions, before the date of Neilson's patent, is undeniable; but no practical success had attended the application; and the

ends proposed, and nature of the inventions, are quite distinct from Neilson's. The real question would appear to be, what is the principle of the invention as disclosed in and by the specification: for to suppose that the doing or using a thing with one object, will deprive the doing or using the same thing with a different object, of the character of an invention, is unreasonable. The omission of one of several processes, or a

posing Neilson's patent to be for an apparatus distinct from H. T., 1841. That described by Botfield, then the whole evidence shows the apparatus to have been a complete failure and perfectly useless. In fact, the apparatus used by defendants and other iron masters is something totally separate and distinct. Under these circumstances, the length of enjoyment will not aid the plaintiff, since he never was a patentee within the sense and meaning which he ought to be as a plaintiff in this court. His right to possession is shaken, and whatever the number of licenses granted makes no difference. These may have been taken in ignorance of there being any other patent in existence.

The order of the Vice Chancellor is incorrect, on the ground of the time which the defendants are alleged to have used the invention. It is quite clear, that if a party who represents himself to be a patentee permits an individual to go on for a certain time using that which he alleges to be his patent, without coming to the court, the court will not give the patentee an injunction at once, but will direct him to enforce his right at law. The parties in this case are found with notice in 1839—the bill was not filed till December, 1840; they have not therefore used that due diligence which the court requires, or which entitles them to ask for an injunction, especially when no benefit can accrue to the plaintiff, and irreparable detriment must be occasioned to the defendants.

Knight Bruce, Jacob, and Campbell, for the plaintiffs, in support of the order of the Vice Chancellor. *Argument to continue injunction.*

The questions raised are, the validity of the patent; that if valid, it has not been infringed; that if valid and infringed, the plaintiffs have so conducted themselves as not to be entitled to an injunction. The Vice Chancellor was of opinion, that there was an infringement, that the age of the patent and the enjoyment there had been under it precluded him, according to the course of the court, from acting on any notion that it was invalid; nor did he intimate any opinion respecting the validity, his expression being, that it was within the principle laid down by Lord Eldon (c).

The enjoyment which there has been under the patent, and the circumstances under which the present defendants have

change in the order of a series of processes, may give a new character to the thing produced, notwithstanding all that is done was done before.

The case usually relied on as countenancing such a doctrine is the following:

Hare v. Harford and Taylor.

The plaintiff had a patent for an improved pressing apparatus, whereby the essential oil of hops was preserved. It appeared that the same thing had been, in fact, effected before by another

apparatus, but that object formed no part of the prior invention, as expressed in the specification. The defendants had a verdict; but see report of case, *post* 291. Its authority has been doubted, and cannot be relied on. See *per* Lord Denman, C. J., in *Minter v. Mower*, *ante* 140.

See also *ante*, 156, *n. c.*

(c) In *Harmar v. Playne*, 14 Ves. Jun. 130. See also *Boulton & Watt v. Bull*, 3 Ves. Jun. 140. and *Bickford v. Skewes*, *ante* 213.

*Argument to
continue the in-
junction.*

used it, are, to a certain extent, combined together; so that the patent must be taken to be good for the present purpose, and nothing that has occurred has been of such a nature as to preclude the plaintiffs from the right to obtain an injunction. The defendant's affidavit is perfectly silent as to the user of the patent at the other works with which he is connected. There have been fifty-eight licenses taken in England, and a great number in Scotland; several actions and suits by the patentee against infringers have been conducted to a successful issue, and several injunctions have been submitted to: so that there has been a distinct user against the public. The contractors in the case of a patent are the public and the inventor, and the use of it against the public is evidence against every member of that public of the patent having been submitted to as valid.

The case of *Harmer v. Playne*, in which Lord Eldon recognised the previous case of *Boulton & Watt v. Bull*, and granted an injunction on the ground of long possession, notwithstanding the very great doubt which he entertained of the validity of the specification, very accurately represents the law and practice as it has been acted on from that time to the present. It is held that the patentee, through the medium of the crown, purchases publication to the world by means of an enrolled specification, the result of the patentee's ingenuity and diligence, and as a consideration for that communication, his invention is protected during a certain time. It is not for the general good, or for the encouragement of ingenuity and diligence, to displace or embarrass such rights on light and trivial grounds. When therefore a party has been in possession of such a right, not displaced by *scire facias*, acquiesced in by the public during a considerable period of time, the court says it will give credit to the validity of the patent until its invalidity is regularly established by a proper proceeding in a court of law, and it shall be protected in the mean time. The parties are perfectly ready to bring an action, and this is part of the order.

The court ought not now to entertain the question of validity; the unsuccessful experiments stated in the affidavit, and relied on by the opposite side, were made during the interval of six months allowed for specifying. It is quite immaterial whether these were successful or not; but has the invention been successful, supposing what the defendants are doing to be an infringement?

It is said, Botfield had a patent previous to Neilson, for the application of hot air to a blast furnace; no one states having heard of his invention being applied; and the two inventions, as disclosed by the specifications, are quite distinct—Botfield's invention being purely mechanical to obtain a draught, and Neilson's purely chemical to obtain a blast of improved quality. It is clear, that no one at the time doubted the novelty of the

invention, but that all doubted its utility; there being a settled conviction that the furnaces did better in winter than in summer, because the air was colder. The question of utility is placed beyond all doubt, and the acquiescence of the trade to the extent which has been proved is evidence of the universal acknowledgment of the novelty of the invention, and of the efficiency of the specification by men at once most interested and most competent to know the one, and to show the impropriety or insufficiency of the other. [Lord Cottenham, L. C.: There is this question, whether, supposing the advantage of hot instead of cold to be a novelty, it is claimed. The public are entitled to know for what it is that the patentee claims the invention, that they may be saved inconvenience upon the subject; therefore the specification must tell the public for what it is that he claims protection. If it be for a principle, then if that is good it will apply to every mode in which that principle can be carried into operation. If for a machine for a particular mode of carrying into effect an old principle, that does not go beyond the machine. The question is, whether the specification does sufficiently inform the public in respect of what it is that he claims the privilege.]

As to the infringement. The defendants use a number of air-tight vessels: it is not suggested that there is any other mode of communicating heated air to a furnace than by enclosing it in an air-tight vessel or vessels, and heating the exterior of that vessel or those vessels, so as to heat the air, and then transmitting the air direct, without contact with the exterior air, from the vessel or vessels into the furnace. It cannot then be said that this specification is clearly wrong. There was great doubt in Lord Eldon's mind in the case of *Harmar v. Payne*, but he saw that men of science, men most interested to contest the patent, and most competent to understand whether it could be contested or not, had been submitting to it, and that they had thus given evidence of the sufficiency of the specification, part of the conditions of the validity of the patent, by their conduct; and that it was unfit therefore, upon any difficulty which might present itself to his mind, to hesitate giving effect to the protection which the legislature designed for ingenious men, and unfit to refine away that protection, which would only have the effect of discouraging them from communicating the result of their skill and their diligence to the public.

It is not necessary in a patent for an improved application or an improvement, for the patentee to describe and elucidate in that particular respect the improvement consists, to describe why it is better. He describes a plan by which he produces a certain effect, which he says is an improvement, and which in his case is a plan for heating the air whilst *in transitu* between the bellows and the furnace, and for heating it by passing it

Argument to
continue the in-
junction.

through some heated vessel. The shape of the vessel is important only with regard to the locality and the economy of fuel. With a round vessel a much larger quantity of fuel will be required to produce a given quantity of heat than with a flat vessel or a pipe. The patentee has a right to claim for heating *in transitu* without reference to the shape or form; any shape or form will answer the purpose, though some shapes and forms will be cheaper and more convenient for some purposes to which the invention may be applied than others.

Suppose the inventor of the steam engine to have taken out a general patent. If his description had been general enough, it might have included locomotive as well as stationary engines, and those used for the purposes of navigation; but if he had made it an essential part of his description, that it should be stationary, or fixed to a house, he would be excluded from some sorts of engines from which he would not have been excluded had he described it as a machine to be worked by the condensation of steam and steam power. And yet, concurrently with that steam engine patent, Boulton and Watt might have had their patent; and another person using the patent engine might perceive that a particular valve would be a great improvement in the patent engine, and might have a patent in that valve.

This patent being for an organized principle, it has this advantage, that the patentee is entitled to claim any mode in which that principle shall be applied. Where the principle is of a scientific or a chemical nature, it matters nothing what may be the peculiar arrangement of the different apparatus, because the principle will necessarily be found, whatever may be the form of apparatus, or whatever may be the form of vessel. One apparatus may produce a greater heat than another, but still the principle of the patent is to be found, and the benefit which is to be derived from the peculiar form of apparatus is still a benefit due to the patentee, who has discovered, not any particular mode of applying the hot air, but the applicability generally of hot air to furnaces.

It appears from the evidence on the other side, that one of the first modes in which Mr. Neilson applied his invention consisted of a cylinder, from 8 to 10 feet long, and $2\frac{1}{2}$ feet in diameter, and this was used at the Calder Works. This is nothing more in effect than a large pipe, and if instead of one pipe two should be used, there would still be the same principle necessarily involved. The pipes now used are not independent pipes, but a continued series.

The licenses are all in one form, and it appears that the plaintiff would not have called for payment before the expiration of a year, and Mr. Thompson was perfectly cognizant of this, having, as a partner in several other works, acquiesced in

his course, and paid rent for the use of the plaintiff's invention. H. T., 1841.

Lord COTTENHAM, L.C.: Suppose your whole case is true, that you were aware they had erected this machine which you said was not to be used without a license in the year 1839, and some communication took place, what we do not know, but you know it, and you were willing that they should use it on paying rent; I do not see how that entitles you to an injunction to prevent them from using it. All that you could insist on is, that they should pay the rent. You could not, after having permitted them to erect their machinery, at an expense of £750 each machine, have said,—Now you have erected this with my knowledge, I will prevent you from using the boiler which you have so erected, without any understanding at all. This court might have given you the aid of an injunction to secure the rent, but you never could have come to the court and said, you shall not use it at all, and that is the injunction granted.] To refuse to entertain the suit would be to deprive the plaintiff of the benefit of his possession of ten years' duration in the face of the world, with the acquiescence of the trade, and after several successful actions. In *Boulton & Watt v. Bull*, Lord Rosslyn refused to dissolve an injunction, although the Court of Common Pleas had been equally divided upon the validity of the patent; there had been long possession in that case, but the right was at the time very doubtful, and Lord Rosslyn proceeded on the ground that he would not disturb the possession. In *Harmer v. Playne*, Lord Eldon acted on the same principle, and said, that when the public had permitted enjoyment under a patent for a reasonably long time, the court would give credit to the patent until the legal question could be tried, and he therefore granted the injunction, although he expressed great doubt as to the validity of the patent.

Lord COTTENHAM, L.C.: If you are willing to deal with the *Judgment*. shilling a ton as the court may direct, and to do that upon grounds quite unconnected with the merits of the case, I think I ought to deal with this question of the injunction, because this is not like the case referred to where the party had been in possession of a patent, and somebody else had done that which was an infringement, provided the patent be good, because here the plaintiff's own statement is, without raising any doubt as to how far that may be correct, assuming the whole statement to be true, that in the year 1839 he was aware that these defendants were at some considerable expense in preparing the apparatus for the purpose of using this hot blast, and he never interfered to stop them, but permitted them to go on, as he says, under the expectation that they would pay him a shilling a ton after a certain time. That is the position in which he has by his own act placed the defendants. Nothing that took place could preclude the defendants from the right of disputing

Judgment.

An injunction
will not be
granted where
irreparable
mischief
would ensue.

the plaintiff's right as a patentee, but they have, at very considerable expense, erected this machinery, and from that time to the present have been using it, the plaintiff being aware of it at least from some time in 1839 (the precise day is not stated), and stood by and permitted them to do this. If he is entitled as patentee, it would be extremely hard for the court to do any thing to prevent his receiving that which he is entitled to receive, and in expectation of which he permitted the defendants to go on with their works. But, on the other hand, it would be extremely hard indeed to tell the defendants that they shall not use the works which, with the plaintiff's knowledge, they have prepared at a very considerable expense; and as to telling them they may go on with the cold blast instead of the hot blast, I am told that the difference between the use of the one and of the other is an expense of nearly double, even if it were possible; at all events they may sustain that loss in the interval until the right is tried. It seems to me that stopping the works, by injunction, under these circumstances, is just inverting the purpose for which an injunction is used. An injunction is used for the purpose of preventing mischief; this would be using the injunction for the purpose of creating mischief, because the plaintiff cannot possibly be injured. All that he asks, all that he demands, all that he ever expects from these defendants, is one shilling per ton. He has not a right to say to them, you shall not use this apparatus; he cannot do so after the course of conduct he has adopted; he may no doubt say with success, if he is right, you shall pay me that rent which the others pay, and in the expectation of which I permitted you to erect this machinery. Therefore, in no possible way can the plaintiff be prejudiced; but the prejudice to the defendants must be very great indeed, if they are for a short period prevented from using at their furnaces that apparatus which, with the consent of the plaintiff, they have erected. The object therefore is, pending the question, which I do not mean to prejudice one way or the other by any thing I now say, to preserve to the parties the opportunity of trying the question, with the least possible injury to the one party or the other; and I think the injunction would be extremely prejudicial to the defendants, and do no possible good to the plaintiff, for the purpose for which it may be used. It may by operating as a pressure upon the defendants produce a benefit, but that is not the object of the court; the object of the court is to preserve to each party the benefit he is entitled to, until the question of right is tried, and that may be entirely secured by the defendants undertaking to keep an account, not only for the time to come, but from the time when the connexion first commenced, and undertaking to deal with that account in such a way as the court may direct; and if the plaintiff is entitled, the

court will have an opportunity of putting the plaintiff precisely A. D. 1841. in the situation in which he would have stood if this question had not arisen. If it shall turn out that the patent is not valid, the court will deal with it accordingly; and that will, I think, most effectually prevent all prejudice.

Order accordingly.

NEILSON AND OTHERS v. FOTHERGILL AND THOMPSON.

This case differed from the preceding, and the bill contained the following additional statements:—That the plaintiffs having called upon the defendants for an account of the iron smelted by the use of the invention, in order to ascertain the sum due, the defendants rendered an account in writing of all the iron smelted by the defendants up to the 2d of August, 1839 (from some time in 1837), and duly paid one shilling per ton on all the iron which it appeared that up to that period they had smelted; that plaintiffs had applied to the defendants for an account of the iron smelted since the 2d of August, 1839, and for like payments, but defendants have refused such application.

It appeared that the draft of a license was sent to the Aberdare Company, which the defendants represented, containing, amongst others, a clause for revoking the license on the non-payment of the rent, and that this license was kept; that the payments made were in conformity with it, and that plaintiffs, after August, 1839, revoked the license.

Wigram, Richards, and Roupell, moved to discharge the order of the Vice Chancellor.

The only unlawful act was the refusal to pay, and a court of law affords the proper remedy for refusing to pay under an agreement. If the contract is repudiated, and the defendants are to be dealt with as strangers, the objection to the validity of the patent must be considered. [Lord Cottenham, L.C.: The only question is, whether any thing which can take place now can relieve you from the payment of the year's rent. You are liable to pay that, whether the patent is good or not. I am not now ordering you to pay the rent, I have no jurisdiction to do that, but as I am called upon to interfere by injunction, I give you that relief upon such terms as appear to me to be equitable. You have, according to the rule laid down by Lord Eldon, put yourselves in the situation of invading a patent right—the right at least which has been used. I think that ought to be protected by an injunction; then the question is, upon what terms ought that injunction to be granted, if I find that you owe a year's rent, as to which you can have no de-

fence, because it is not due by virtue of the patent right, but by virtue of the contract.] The right to an injunction is displaced by showing a contract to use the invention. The defendants have a right to dispute their liability to pay the money, notwithstanding the license. If the consideration totally fails by the patent being invalid, our having made an agreement to pay on the supposition of the patent being valid, does not prevent us from raising the question. A person taking a license to use a patent, if it turns out that there is no patent in law, may at law dispute his liability to pay. He is not, as in the case of landlord and tenant, prevented from disputing the title. [See *Cottenham*, L.C.: If it were quite clear that in whatever way the right is determined that year's rent would be payable, I should have felt no difficulty.]

Argument in
support of in-
junction.

Knight Bruce, Jacob, and Campbell, in support of the order of the Vice-Chancellor.

The defendants, after notice of revocation of the license, were wrong-doers: they were previously under a contract, and are by their own acts estopped from denying the validity of the patent.

The authority of *Bowman v. Taylor* is a settled principle of law, and proceeds on the same footing as that of landlord and tenant, until you show that there has been some such impropriety of conduct, or fraud, as to prevent the consequences resulting. The case here is a case of equitable estoppel, of a party having had a thing demised to him attempting to dispute his landlord's title, which is against all principle. In the present case the license has not been actually executed, but the licenses have all been granted in one form, and a draft of the proposed license was sent to the parties and never returned, but having paid money on the footing of it, they are exactly as much bound by it in a court of equity as if they had executed it, as in the common case of a demise between landlord and tenant. The Aberdare Company have been let into possession, they have been allowed to use it, to set up machinery, to avail themselves of the profits on the faith of the contract they have continued uninterruptedly without cessation. There has been no eviction as if another patentee or alleged patentee claimed the payment, or as if the patentees had omitted to perform their duty in securing them the enjoyment of the patent. They have been let into possession, and by the use of it have made the contract as solemn in equity as if it were by deed. It is a part of the terms of the contract, as evidenced by the draft of the license, that if they did not pay it should be revoked. Thus in the case of a tenant from year to year, the landlord cannot evict him as long as he sustains the character of tenant without giving six months' notice. But suppose the tenant says, you are not my landlord, and sets him at defiance. Upon a repudiation of the landlord's title, the landlord has a right to bring ejectment

because his title is repudiated ; accordingly, this payment being withheld, and the right of it disputed, the payment being made a ground of continuing the license, we are restored to those rights which we had originally, and which these parties have distinctly occupied.

Lord COTTENHAM, L.C. : This case is deprived of those circumstances upon which I acted in the other, namely, the party who claims to be patentee permitting them to incur expense in the expectation of being permitted to use the furnaces upon the payment of the rent, which is all the plaintiff requires. But here, all that is accounted for, because that was done under a contract, and for two years at least the party has had the benefit of the works which he has so erected, and the patentee has kept his contract with the defendants ; he has not interposed and endeavoured to deprive them of the benefit of their expenditure. It is the act of the manufacturer which has put an end to this connexion ; he has therefore exposed himself to any degree of injury that may arise from the expenditure upon these works, and it appears that there is no answer to the claim to this rent from August, 1839, to August, 1840. I shall have to consider, if your client declines to escape from the injunction upon the terms I propose to him, whether the injunction should not go in a case which is deprived of those equitable circumstances which induced me to dissolve it in the others. [*Wigram* : Your lordship will give me the benefit of the supposition, that, at law, I have a defence if the patent is good for nothing.] If you can show me that there is a real question to try, the money must be paid into court instead of being paid to the parties ; but at all events, I do not see how for that year, from August, 1839, to August, 1840, when you went on under the contract without giving notice to determine, you can escape paying it, either into court to abide the event of the trial of the question at law, or paying it to the party if there is no question to try.

Wigram, in reply. Your lordship said you should consider, whether, since August, 1840, we were to be considered as holding adversely, and, therefore, whether liable or not to pay for what was gone by, we were at all events wrong-doers. And then you put me to show, whether I could not in law defend myself for what was said to be due in August, 1840. The principle which I have always understood to govern cases of this sort is this, that, excluding the law of estoppel, if you go into a court of law, and can show a total failure of consideration for the contract, there you may always defend yourself ; if, on the other hand, you cannot make out a case of total failure of consideration, you are liable upon your contract, and you may or may not have your cross action. This is the general principle in these cases, subject to the question, whether that which has been done may or may not amount to an estoppel. The whole

Argument on the injunction. question in the case of *Bowman v. Taylor*, relied upon for the plaintiff, was, whether or not there could be an estoppel by recital, and it was held that there could. In *Hayne v. Mallby* the question was, whether there was any estoppel, there being no recital of the plaintiff's title, but only an agreement and a covenant to pay, and the court held that there was not. In that case Mr. Justice Ashurst said, the plaintiffs use this patent as a fraud on all mankind, and they state it to be an invention of the patentee, when in truth it was no invention of his. The only right conferred on the defendant by the agreement was that of using this machine, which was no more than that which he in common with every other subject has, without any gain from the plaintiff. That is exactly our case. We say that all mankind have a right to use it, but that some people have taken licenses, supposing it to be the plaintiff's invention. Of the money then being paid into court, the injunction should be dissolved.

LORD COTTENHAM, L.C.: The case of *Hayne v. Mallby* appears to me to come to this—that although a party has dealt with the patentee and has carried on business, yet that he may stop, and then the party who claims to be patentee cannot recover without giving the other party the opportunity of disputing his right, and that if the defendant successfully disputes his right, that notwithstanding he has been dealing under a contract, it is competent to the defendant so to do. That is exactly coming to the point which I put, whether, at law, the party was estopped from disputing the patentee's right, after having once dealt with him as the proprietor of that right, and it appears from the authority of that case, and from the other cases, that from the time of the last payment, if the manufacturer can successfully resist the patent right of the party claiming the rent, that he may do so in answer to an action for the rent for the use of the patent during that year. That being so, I think that, upon the money being paid into court, that is to say, upon the amount of the rent for that year being paid into court (if required), and the same undertaking being given to account for the subsequent period, the same order ought to be made in this case as in the others. There must be an undertaking to deal with the amount of that in the same way as before. The great difficulty in this case, which however has been surmounted in the undertaking, is, that the said suit does not go to that year's rent.

Order accordingly.

Neilson v. Harford and others. *

— *v. Homfray and Thompson.*

The same order was made in these cases as in *Neilson v. Thompson and others*, ante 287, the circumstances being substantially the same.

Estoppel and failure of consideration.—It may be convenient to present an abstract of the principal cases referred to in the argument, or which have occurred on the questions of estoppel and failure of consideration, more especially with reference to patents.

Oldham v. Langmead.

case, where the action was brought by one of the patentees against the patentee, upon, before whom the cause was tried, permit the latter to show that it was an invention against his own deed, and judgment in the case of *Hayne v. Maltby*.) In the case of *Oldham v. Langmead*, the deed conveyed his interest in the patent in full, and yet in violation of his contract afterwards infringed the plaintiff's right, attempted to deny his having had it conveyed; but I was of opinion that he was bound by his own deed from making that 3 T. R. 439 & 441.

It does not appear from the report of the case, whether the estoppel in the case was to arise out of any recital in the deed, or out of the position and acts of the parties; but it must appear, under the circumstances, that there was a sufficient connexion with the deed, to be sufficient to create an estoppel, though the deed itself contained no recital of the invention.

Hayne and another v. Maltby.

[3 T. R. 438.]

This was an action of covenant on articles of agreement, which recited that the plaintiffs were the assignees of a patent granted to T. Taylor; that the defendant had applied to the plaintiffs for permission to use the patent invention, to which they assented, on condition of his working the invention in the manner described in the specification; and that he should have the free use and enjoyment of one patent machine, inasmuch as the same should be worked only in the manner described in the specification; and also that the defendant, that he would not, in any way, use any of the machines except the one by the articles granted to be employed by him. The declaration alleged that the defendant without infringing the plaintiffs, and assigned two machines for using patent machines other than those that by the agreement allowed, for using machines resembling the plaintiffs. The defendant, among other things, alleged that the invention was not a new invention and that it was not discovered by the plaintiffs. To these pleas the plaintiffs demurred. Judgment was given for the plaintiffs, in support of which the defendant was by his deed bound, saying that the invention was not discovered by the patentee, on the principle that a party who has entered into a contract cannot say that there was no invention, though he may plead that the invention was illegal. The above case of *Langmead* was referred to, and relied on, that the defendant should have obtained letters patent by *scire facias*, and taken to the Court of Chancery to have the deed delivered up and cancelled; but by his deed the defendant has admitted that the plaintiff is entitled, and as long as the term exists he cannot deny it, in the same manner as he is holding under a demise from his landlord estopped from denying his landlord's title, and to an action for rent. The court gave judgment for the defendant, on the ground that he was not estopped; but

the learned judges did not take the same view of the subject, and their judgments rest on different grounds.

Lord Kenyon, C. J., put it on the ground of fraud, and that the doctrine of estoppel did not apply, but distinguished it from the case of a landlord and tenant; for that the tenant is not at all events estopped to deny his landlord's title, the estoppel only existing during the continuance of his occupation, and if he be ousted by a title paramount he may plead it.

Ashurst, J., also distinguished it from the case of landlord and tenant, on the similar ground, that the tenant having a meritorious consideration shall not, so long as he enjoys the estate, be permitted to deny his landlord's title; and put it on the ground of fraud. That the plaintiffs were using the machine as a fraud on all mankind, having no more right to do so than any other subject.

Buller, J., referred the case to the principle of eviction, thinking the facts disclosed by the pleas equivalent to an eviction. The plaintiffs, asserting an exclusive right, covenant with the defendant in respect thereof, and it is afterwards discovered they have no such right, and therefore the defendant has not the consideration for which he entered into the covenant.

The reasons assigned by Buller, J., do not appear altogether consistent; the defendant had the enjoyment in fact of the machine for which the plaintiffs covenanted; the failure of consideration was only in respect of the want of exclusiveness, inasmuch as others might also use the invention if the patent was void. The reasons of the other two learned judges proceeded chiefly on the assumption of fraud, which is not borne out by the statements on the record. The question of estoppel by reason of any recital in the deed did not arise in the above case, and this fact was held to distinguish it from the subsequent case of *Howman v. Taylor*, 2 Ad. & E. 290, where Patteson, J., remarked, with reference to this case, that the recital contained no assertion of right in the plaintiffs except as assignees, and the plea does not deny that the case is not properly one of estoppel. *Infra*.

Hare v. Hayford and Taylor.

This was an action (tried before Lord Alvanley, Trin. Vac. 1803), on a bond conditioned for the payment of an annuity to the plaintiff during the existence of letters patent, in consideration of his licensing the defendants to use the invention for which it was obtained. The defendants pleaded that one T. S. Wood had before practised the same thing, that the plaintiff's invention was therefore not new and the patent void. Issue being taken on this plea, the question was as to the identity of the two inventions. The evidence on the part of the plaintiff and of the defendants was very conflicting, but it appeared that Mr. Wood's invention, which was for certain improvements in the application of steam and heat connected with brewing, besides the immediate objects as set forth in the specification, did in fact preserve the essential oil of hops, the preservation of which, by means of apparatus placed over the copper, was the express object of the plaintiff's invention. Mr. Wood, who was called on the part of the defendants, stated that he had once entertained an idea of preserving the essential oil of hops, but that the experiment failed, and he did not think it worth repeating. The

jury, without hearing the summing up, found a verdict for the defendants. 3 Rep. Arts, 2nd Series, 232.

Taylor v. Hare.
[1 N. R., 260.]

The plaintiff was the surviving partner of the defendant Harford in the above case, and this was an action for money had and received, which came on to be tried before the Lord Chief Justice at the sittings after last Hilary term, when a verdict was found for the plaintiff for 425*l.*, subject to the opinion of the court on the following case:—

On the 12th of September, 1791, the defendant took out a patent for the invention of an apparatus for preserving the essential oil of hops in brewing. By articles of agreement, dated 5th of November, 1792 (which were set out at length at the end of the case), and made between the defendant of the one part, and the plaintiff and his said late partner of the other part, reciting the defendant's patent, and that it gave him the sole power, privilege, and authority of using, exercising, and vending his said invention for the term of fourteen years, the defendant granted to the plaintiff and his said late partner the privilege of making, using, and exercising the said invention for the residue of the said term of fourteen years; and in consideration thereof, the plaintiff and his partner covenanted that they would secure to be paid to the defendant, during the said term, an annuity of 100*l.*, and would give their bond for that purpose, and a bond was accordingly given, conditioned for the payment of the said annuity. The plaintiff and his said late partner used the apparatus (for the making and preparing of which they paid a distinct price) from the date of the said agreement until the 25th day of March, 1797, and during all that time regularly paid the said annuity to the said defendant. The defendant was not the inventor of the invention for which he obtained his patent. The invention was not new as to the public use and exercise thereof in England, but it was the invention of one Thomas Sutton Wood, and had been publicly used in England by the said Wood and others, before the defendant obtained his patent. But the patent had never been repealed. The amount of the annuity that they had paid was 425*l.* If the court should be of opinion that the plaintiff was entitled to recover back the money that was paid on the bond, the verdict was to stand. If the court should be of a contrary opinion, a nonsuit was to be entered.

Bayley, Serjt., for the plaintiff: To support the present action, it is not necessary to prove that any imposition has been practised. If it appear that the plaintiff has received nothing in return for the money that he has paid, he is entitled to recover back his money in this form of action. He was induced to pay his money upon the supposition that the defendant had the power of communicating some privilege. But as it now appears that the defendant's invention was not new, and that the patent was therefore void, the consideration upon which the plaintiff paid his money has wholly failed, and the plaintiff has derived no benefit whatever. Where an estate is conveyed, the vendor professes to convey nothing but his title to that estate. But here the thing itself, which was the subject of the agreement, had no existence. It was the understanding of all parties that the defendant was

entitled to a patent right; but it now appears that they were mistaken; the plaintiff is entitled to recover the money which he paid under a mistake. He had a right to use the invention without paying for it. The defendant has no right to it, and indeed he has already failed in it, by the bond, in which the validity of the patent was put in issue.

Sir James Mansfield, C.J. (stopped by Serjt., for the defendant): It is not necessary to say any action like the present has ever taken place. In this case two persons equally innocent bargained about the use of a patent, the plaintiff supposing himself to be in possession of a patent right, and the plaintiff supposing the defendant to be in possession of a patent right. Under these circumstances the plaintiff agrees to pay the former for the use of the patent, and he has the use of it now to his advantage he made of it; for any reason appears, he may have made considerable profit. These persons may be considered in law as partners in the benefit of this invention, in consideration of a certain sum of money the defendant permits the plaintiff to make use of the invention, which he would never have done if he had not the privilege been taken by him. How then can we say that the plaintiff ought to recover back all that he has paid? I think that there must be judgment for the defendant.

Heath, J.: There never has been a case where there never will be, in which a plaintiff has received benefit from a thing which he has been recovered from him, has been maintained an action for the consideration of it. We cannot take an account of the profits. It might as well be said that a man leases land, and the lessee pay rent, and the lessor be evicted, that he shall recover back though he has taken the fruits of the land.

Roake, J.: I am of the same opinion.

Chambre, J.: The plaintiff has been disappointed of what he stipulated for, and the action the court ought not to inter in. There be something *ex æquo et bono* that the defendant ought to refund to the plaintiff. The parties have been mistaken: the defendant has thrown away his money in obtaining his own invention; not so the plaintiff has had the use of another person's invention. In the case of *Arkwright v. Taylor* which was not overturned till very lately, at which it would have expired, sums of money had been paid; and a thing certainly was paid for the use of the invention, yet the main part was paid for the privilege of using the patent right, but it was recovered back which had been the use of that patent. I am therefore of opinion that judgment of nonsuit should be entered.

Judgment.

Bowman v. Taylor and others.
[2 Ad. & E., 278.]

This was an action of covenant, a declaration stated that by indenture of the 18th of December, 1824, between, &c., after reciting that the plaintiff had invented certain improvements in the construction of looms for weaving, and obtained letters patent for the same, and that the defendant had particularly described and ascertained the nature of the invention

a writing, and caused the same to be read that the plaintiff had agreed with the defendants to permit them to use the said invention in the considerations therein mentioned, and the defendants covenanted for &c. The declaration then averred enforcement of the invention, and assigned as breach the non-fulfilment of other cove-

defendants pleaded, 1. Setting out part of a patent, and the proviso as to want of novelty, and averred that the said supposed invention was not a new invention. 2. That the plaintiff was not the true or first inventor of improvements. 3. That the plaintiff caused an instrument in writing to be drawn particularly describing the nature of the invention.

The plaintiff demurred to these pleas and joinder. On the 21st, 1834. For the plaintiff, in support of the demurrer, it was contended that the defendants were estopped from alleging the facts stated in the pleas; the recital in the declaration, as stated in the declaration, admits that the plaintiff invented the improvements for which letters patent were granted; the defendants do not then deny, as is attempted by the pleas, that the invention was new, or that the plaintiff was the inventor. The recital, taking the word "invention" in the popular acceptation, is directly contrary to the pleas, and if the sense now put by the plaintiff is that in which the word is used in the indenture meant to use it, the plea is completely raised. On the third plea, which can arise, the words of the recital and the plea being expressly contradictory to each

other, part of the defendants, it was contended that the word "invention" did not necessarily imply that the plaintiff was the first inventor, and of a new invention; he might have made the invention fifty years before, and suffered it to be used by so many persons since that the license to use it now was due to the defendant; in that case the plaintiff would be the inventor, and yet the defendant would not be estopped from saying that the invention was not new. That an estoppel being a matter of law, will not be held to attach upon a plea which can by possibility be contrary to that of the deed, and nothing is to be inferred in favour of an estoppel by inference or otherwise.

Denman, C.J.: The plaintiff contends that the pleas are bad, because the defendant is estopped by his deed from pleading them. It is said as to the first plea, that it is not inconsistent with the deed; but we think it is so, and that it is no defence. If by saying that the invention is not new, it is only meant that it was discovered by the plaintiff fifty years ago, there is no reason that he should not now claim out a patent for it. So as to the second plea, that the plaintiff was not the first or true inventor: that averment either denies that he is the inventor, or denies that he was the first inventor. The answer is the same as to the first; in the one case the defendant is estopped from alleging, because he contradicts the recital of his own deed: in the other he gives no answer to the declaration. The third plea puts a fact in issue in direct con-

tradiction to the recital of the deed. The doctrine of estoppel has been guarded with great strictness; not because the party enforcing it necessarily wishes to exclude the truth, for it is rather to be supposed that that is true which the opposite party has already recited under his hand and seal; but because the estoppel may exclude the truth. However, it is right that the construction of that which is to create an estoppel should be very strict. As to the doctrine laid down in *Co. Litt. 352 b*, that a recital doth not conclude, because it is no direct affirmation, the authority of Lord Coke is a very great one; but still, if a party has by his deed recited a specific fact, though introduced by "whereas," it seems to me impossible to say that he shall not be bound by his own assertion so made under seal. This point was much considered in *Lainson, executor of Griffiths, v. Tremere* (1 Ad. & E. 792; 3 N. & M. 603). There could have been no case in which the court would have been more strongly inclined to struggle against the doctrine of estoppel than that. The action was upon a bond. The condition, set out on oyer, recited that, by indenture of lease between the plaintiff's testator and the defendant, the testator demised premises to the defendant at the yearly rent of 170*l.*; and the condition was, payment to the testator of that sum. The defendant pleaded, that the lease in the condition mentioned was a lease the redemption of which was 140*l.* only, and that that sum had always been paid; to which the plaintiff replied, that the yearly sum of 170*l.* had not been paid. On demurrer it was held, that the defendant was estopped from pleading a lease at 140*l.*, which was in effect the same as saying that there was no lease at 170*l.* as mentioned in the bond. This was as strong a case as can be conceived; and the averment creating the estoppel was introduced by way of recital: yet this court, upon the greatest consideration of the cases ancient and modern, decided for the estoppel. I do not think it necessary, in deciding the present case, to enter into a minute examination of the authorities: they were fully considered on that occasion; and I think the case of *Hayne v. Maltby* has been sufficiently distinguished from that before us in the course of the argument.

Taunton, J.: The law of estoppel is not so unjust or absurd as it has been too much the custom to represent. The principle is, that where a man has entered into a solemn engagement by deed under his hand and seal as to certain facts, he shall not be permitted to deny any matter which he has so asserted. The question here is, whether there is a matter so asserted by the defendant under his hand and seal, that he shall not be permitted to deny it in pleading. It is said that the allegation in the deed is made by way of recital, but I do not see that a statement such as this is the less positive because it is introduced by a "whereas." Then the defendant has pleaded that the supposed invention, in the declaration and letters patent mentioned, was not nor is a new invention. These words "was not nor is a new invention," must be understood in the same sense as the words "had invented" in the recital of the deed set out in the declaration, and must refer to the time of granting the patent; and if the invention could not then be termed a new invention, it could not, I think, have been truly said in the deed that the plaintiff "had invented" the improvements, in the sense in which

the deed uses the words. Then the plea directly negatives the deed, and comes within the rule that a party shall not deny what he has asserted by his solemn instrument under hand and seal. As to the case of *Hayne v. Maltby*, I acknowledge, with unfeigned respect, that it does not become me to criticise the opinions of judges so great and eminent as those who sat here when that case was decided; but it is not necessary to examine into the grounds of the judgments there delivered, because I think Mr. Tomlinson has distinguished that case from the present. Here there is an express averment in the deed, that the plaintiff is the inventor of the improvements: there the articles of agreement averred nothing as to the originality of the invention, but merely stated that the plaintiffs were the assignees of the patent, which they might have been though the assigner was not the original inventor. And, besides, though I do not rely much upon that, the judges there differed in the reasons which they assigned for their judgments. It is sufficient, however, to say, without derogating from the authority of those learned judges, that that case is very distinguishable from the present. I am of opinion that the demurrers here are well grounded, and the plaintiff entitled to judgment.

Patteson, J.: The third plea distinctly raises the question of estoppel: the first and second not so directly. The declaration sets out a recital in the deed between these parties; and it is necessary to consider the meaning of the words there used. It is said that in the case of an estoppel nothing is to be taken by way of intendment. But before we come to the question of estoppel, we must examine the construction of the deed. The words are, "that the plaintiff had invented certain improvements," and had obtained his majesty's letters patent for the sole use of the said invention. This recital can only mean that he had invented new machinery, for which he had obtained the patent. If it meant that he was not the first inventor, it would be absurd. That being so, the pleas are, first, that the invention is not new; secondly, that the plaintiff is not the first inventor. Then, if those assertions are used in the same sense as the words "had invented" in the deed, they contain a direct denial of the matter there recited; if not used in the same sense, they are no answer to the declaration. The only authority cited for the proposition, that no estoppel can be by recital, is that from Co. Litt. 352 b. It is not denied, however, that there has been many cases in which matter of recital has been held to estop; but then it is said that the recital in those cases has been inseparably mixed with the operative parts of the deed. But, if that be a test, the case is so here. The deed recites that the plaintiff has invented improvements, and obtained a patent for the invention, and then it proceeds to a demise of the very subject-matter for which the patent is so granted. I cannot separate these things, and I therefore think the recital here comes within the description which Mr. Wightman has given of the law laid down by the old cases. The passage in Lord Coke must be taken with some little qualification; and *Lainson v. Tremere* is a direct authority to show that there may be an estoppel by matter of recital. In *Hayne v. Maltby*, the recital contained no assertion of right in the plaintiffs except as assignees; and the plea did not deny that. The case was not properly one of estoppel.

How far the principle of eviction was applicable it is not now material to consider.

In *Ham v. Langmead*, there cited, where it was brought by the assignee of the patent against the patentee, Lord Kenyon allowed the latter to show that the invention was not a new one against his own deed. The pleas are mutual, that is a strong argument to show that the assignee, if he had by him the invention to be new, would have estopped from pleading the contrary. The current of authorities, and particularly the case of *Lainson v. Tremere*, show that there is an estoppel by recital in a deed. The plaintiff is entitled to judgment.

Williams, J.: I am of the same opinion. The passage has been cited from Lord Coke, he says that an estoppel must be certain and taken by argument or inference. I give the words of this recital the sense to them by the plaintiff, is no argument only making use of the common understanding of a phrase in the English language. It is said, as in this deed, that a party "had invented" an improvement, it means that the inventor of it so as to make that available under the law of patents. The words "had invented" must then, without any mean that, the contrary of which is in the first and second pleas. The question fore, upon these is the same as upon the plea, as to which there is no doubt. The only question is, whether a recital, not direct assertion, can estop the party. I made it: no decision has been cited to the contrary; and this court lately determined in *Lainson v. Tremere* that the doctrine of estoppels was carefully considered, and where the estoppel is depended as much upon a recital as the present case.

Judgment for the plaintiff.

Collinge v. Bowman.

November 20, 1834. This was a motion to restrain the defendant from proceeding with an action at law, or, if the court should be of opinion that the action at law should proceed, to grant liberty for the plaintiff to give evidence of the validity of a patent obtained by the defendant. In 1824, the plaintiff Collinge and his wife took a license from the defendant to use looms with improvements, alleged to be the defendant's invention, in consideration of paid immediately and certain annual rent. The license deed contained a proviso, that if the plaintiff should furnish evidence of any infringing the defendant's patent, he (the defendant) would bring an action or proceed by action. In December, 1825, the validity of the patent was disputed, and an agreement entered into between the plaintiff and the defendant by which the plaintiff agreed to pay the defendant 202*l.*, then alleged to be due in respect of annual rents, and the defendant agreed to surrender all further claim on the plaintiff. Eight months after the date of this agreement, the defendant brought an action to recover from the plaintiff the arrears of rent then said to be due; the court having held in a similar case, that the defendant was estopped by his license deed from denying the validity of the patent, Collinge had no remedy but the present application.

defendant it was contended, that upon arising between the defendant and he had agreed not to call upon the payment of the annual rent until the patent should be established. That was without consideration, and invalid, and moreover was not the plaintiff's supposed equity, for the original contract as fraudulent, the defendant having represented he inventor of machinery which he fact invented. For that allegation the slightest foundation, and it was negated by the defendant's had been determined by a court of plaintiff had no right, according to the original contract, to dispute the patent, and this court had no jurisdiction of the Court of King's Bench, or controlling the conduct of pro-law.

error of the Rolls: The only question, use is made out for the interposition of equity, founded upon the parol the defendant to discharge the plain-payment of the annual rents. Now's bill is not framed for the purpose of at parol agreement into effect; it is in the inception and execution of contract, and that fraud is distinctly the plaintiff's answer. Whether the ing's Bench was or was not right in at the plaintiff was estopped by the original contract from objecting to of the patent, is not here the question. is, whether the subsequent agree- such a nature as to give the plaintiff titling him to the interposition of this w that agreement was a mere volun- ment on the part of the defendant to sting upon his legal rights under the tract, until he should have established the benefits of the patent; and it is considered as a gratuitous abandonment

of the rights which the law gave him. This motion, therefore, must be refused.

Chanter v. Leese and Others.

This was an action on an agreement not under seal, whereby, after reciting that the plaintiff had obtained one patent and was interested in several others, in consideration of 400*l.* per annum, payable to the plaintiff, and certain other sums payable to other persons, it was agreed between the parties, that the defendants should have the exclusive use of the said inventions, the subjects of the above patents, and the breach assigned was the non-payment to the plaintiff of a half-yearly payment. The defendants, among other pleas, pleaded, setting forth the plaintiff's patent, and averred that it was not at the time of the grant a new invention as to the public use thereof in England; and this plea was held a bar to the action, on the ground that there was a part failure of the consideration. There were many other points in the case besides the one here noticed. See 4 M. & W. 295, and affirmed in error, 5 M. & W. 698.

This case is at once distinguishable from all the others above noticed; in *Hayne v. Malby*, and *Bowman v. Taylor*, the grant of license was by deed, and there were express averments of the enjoyment of the patent; in *Taylor v. Hare*, there had been distinct enjoyment; the question of estoppel did not at all arise, it not appearing that there had been any enjoyment by the defendants.

Lovell v. Hicks.

In this case an agreement for the purchase of a share in certain letters patent, which proved to be a mere bubble speculation, was set aside on the ground of fraud and misrepresentation, and so the money paid under the agreement ordered to be refunded. 2 Y. and Col. 46 & 472.

See further *Protheroe v. May*, and notes, as to some of the matters here referred to, and as to questions of assignment and license, and partnership in letters patent. *Post*.

Cor. Parke, B., May 4th, 5th, and 6th, 1841.

declaration, which was in the usual form, assigned as *Declaration*.

1. First, that the defendants did use and put in practice invention, by smelting, manufacturing and making divers, of iron, on the said improved plan and principle of invention, and in imitation of the said invention. smelt, manufacture, and make divers, &c., tons of iron said improved plan and principle. 3. Did counterfeit, and resemble the said invention, and did make divers additions thereto, and subtractions therefrom, where-pretend themselves to be the inventors and devisers and did put in practice the said imitations, additions,

and alterations, as aforesaid, and pretend themselves to be the inventors of the said invention. 4. Did smelt, manufacture, and make divers, &c. tons of iron, with certain other improvements in the process of such smelting, manufacturing, and making, which were intended to imitate and resemble, and did imitate and resemble, the said invention, and thereby counterfeited the same.

Pleas.

The defendants pleaded, First, not guilty. 2. That the said Neilson was not the true and first inventor of any invention for the improved application, &c. 3. That the said invention was not new as to the public use and exercise thereof, within, &c. 4. Setting out the specification, and averring that the said Neilson did not by the said, or by any other instrument in writing, particularly describe and ascertain the nature of his said supposed invention, and in what manner the same was to be performed. 5. That the said invention was not, at the time of making the said letters patent, nor has been, of any public or general use, benefit, or advantage, whatsoever. On these pleas issues were joined.

Notice of Objections.

The defendants delivered with their pleas the following objections. The defendants in this action, besides denying that they have infringed the patent in the declaration mentioned, intend at the trial of this cause to rely on the following objections (that is to say): that the said patent is void, as being for a principle; that the terms in which the subject of the patent is described, viz. an invention for the improved application of air to produce heat in fires, forges, and furnaces, where bellows and other blowing apparatus are required, are ambiguous, and it is doubtful whether the patent is for the invention of the application of hot air, or only for an improved mode of applying hot air. That the said Neilson is not the first and true inventor of the said supposed invention. That the said supposed invention was publicly used and put in practice before the granting of the said letters patent. That the said invention, before the date of the said letters patent, had been publicly disclosed and printed in divers philosophical and other books, and amongst others in a certain treatise or paper published by Mr. James Sadler, in Nicholson's Journal of Natural Philosophy, for the month of April, 1798 (a). That the introduction and application of heated air into furnaces for the purpose of producing an intenser heat, was in 1825, and before the date of the said letters patent, made known by the invention of Mr. Chapman's process for creating combustion and consuming smoke (b). That the application of atmospheric air beyond its ordinary temperature, to facilitate the smelting of iron and other ores, is claimed gene-

(a) As to this invention, see *ante* 275.

(b) *Ibid.*

ally by the said patent, whereas the said application was known A.D. 1841. and practised both in England and Scotland prior to the date of the said letters patent, and amongst other places at Glasgow and Irvine, in Scotland, and at Liverpool, and in London, by various iron founders, anchor-smiths, and other persons engaged in the manufacture of iron; and prior to the date of the said letters patent, the principle of the application of heated atmospheric air to fires, forges, and furnaces, had been disclosed in the specifications of two several patents which had been obtained—the one in December, 1816, by the Rev. R. Stirling, for his invention for diminishing the consumption of fuel (c)—the other by Mr. T. Botfield, in the month of January, 1828, for his invention of certain improvements in making of iron, or in the method of smelting and making of iron (d); and also the principle of the application of heated air to furnaces, in 1825, and prior to the date of the said letters patent in the declaration mentioned, had been made known and put into practice by one Mr. John Jeffries and Mr. F. Patten, of the Grove Court Foundry, Southwark.

The defendants further contend, that if the invention claimed is an improved mode of applying heated air to fires, forges, and furnaces, then the said patent is void, because no sufficient specification of the said invention has been enrolled in conformity with the provisions of the said letters patent in that behalf; that the description of the apparatus to be employed is so defective, that no workman of ordinary skill would be able to manufacture the said apparatus merely by reading the said specification; that the said specification is calculated to deceive. That the mode of applying hot air by means of an air vessel or receptacle, which is vaguely described in the said specification, is substantially the mode or apparatus for which Mr. Botfield had previously obtained his patent. That the said specification, so far as it can be understood as descriptive of a particular apparatus for forming and supplying hot air, describes an apparatus which does not answer the purpose. That the said specification is invalid on account of its general vagueness. That the said specification is defective, inasmuch as it does not describe the kind of furnace to which the said invention is applicable, and it is not applicable to all kinds of furnaces. That the apparatus described in the said specification to be employed for the purpose of heating air, is so defective, that it is incapable of producing any beneficial effect in the blast furnace. That the apparatus used by the defendants is wholly different from that described in the specification, and upon a different principle, and it was invented at the Calder Iron Works,

(c) *Ante* 275.(d) See specification, *ante* 274.

Notice of objections.

and other iron works near Glasgow, in Scotland, and by Mr. J. Jeffries and T. Patten, at Southwark, and not by the said Neilson.

That if the apparatus described by the said Neilson in his specification could be made to raise the atmospheric air to a sufficient degree of heat, it could not be used without a water twire for introducing the hot air into the blast furnace. That the apparatus which the defendants do use, and any other apparatus which would be capable of raising the atmosphere to a sufficient degree of heat, could not be applied to the blast furnace without the use of a water twire.

That it is alleged in the said specification, that the size of the air vessel must depend upon the blast, and on the heat necessary to be produced; that for an ordinary smith's fire or forge an air vessel or receptacle capable of containing 1,200 cubic inches will be of proper dimensions, and for a cupola of the usual size for cast iron founders, an air vessel capable of containing 10,000 cubic inches will be of a proper size. For fires, forges, and furnaces, upon a greater scale, such as blast furnaces for smelting iron, large cast iron founders' cupolas, and vessels of proportionally increased dimensions and numbers will be required; whereas, in order to produce the effect required the heating apparatus ought to be made of such a construction that the surface exposed to the action of the heat should be in proportion to the quantity of air required to be heated, and the instead of the vessel or receptacle being enlarged when a greater quantity of heat is required, the heating apparatus must be reduced in size, and the surface increased in extent, so as to obtain the maximum of heating surface in proportion to the quantity of heated air required.

That it is therein alleged, that the air vessel or receptacle may be conveniently made of iron, but as the effect does not depend upon the nature of the material, other metal or materials may be used; whereas, in fact, no other metal can be used which will effect the desired object so well and at such small expense as iron. Also, that the sizes and proportions of the air vessels mentioned in the specification, rendered the alleged invention inoperative and useless. The defendant further object, that the said invention, as described in the said specification, is of no public use or benefit; that the heated air cannot be introduced into smelting furnaces by a simple pipe as mentioned in the said specification.

Plaintiffs' case.

Sir W. Follett for the plaintiffs: The plaintiffs are the proprietors of an extremely valuable patent for a discovery of the greatest importance, and whatever other points may be urged in the case, no one will dispute the great advantage of the discovery. It is scarcely possible to exaggerate its importance there has been nothing discovered in modern times which has

y by the said patent, whereas the said application was known A.D. 1841. I practised both in England and Scotland prior to the date of the said letters patent, and amongst other places at Glasgow and Irvine, in Scotland, and at Liverpool, and in London, various iron foundries, anchor-smiths, and other persons engaged in the manufacture of iron; and prior to the date of the said letters patent, the principle of the application of heated atmospheric air to fires, forges, and furnaces, had been disclosed by the specifications of two several patents which had been obtained—the one in December, 1816, by the Rev. R. Stirling, for his invention for diminishing the consumption of fuel (c)—the other by Mr. T. Botfield, in the month of January, 1828, for his invention of certain improvements in making of iron, or in the method of smelting and making of iron (d); and also the principle of the application of heated air to furnaces, in 1825, and prior to the date of the said letters patent in the declaration mentioned, had been made known and put into practice by Mr. John Jeffries and Mr. F. Patten, of the Grove Court Foundry, Southwark.

The defendants further contend, that if the invention claimed in the said patent is an improved mode of applying heated air to fires, forges, and furnaces, then the said patent is void, because no sufficient specification of the said invention has been enrolled in conformity with the provisions of the said letters patent in that behalf; that the description of the apparatus to be employed is so defective, that no workman of ordinary skill would be able to manufacture the said apparatus merely by reading the said specification; that the said specification is calculated to deceive. That the mode of applying hot air by means of an air vessel or receptacle, which is vaguely described in the said specification, is substantially the mode or apparatus for which Mr. Botfield had previously obtained his patent. That the said specification, far as it can be understood as descriptive of a particular apparatus for forming and supplying hot air, describes an apparatus which does not answer the purpose. That the said specification is invalid on account of its general vagueness. That the said specification is defective, inasmuch as it does not describe the kind of furnace to which the said invention is applicable, and it is not applicable to all kinds of furnaces. That the apparatus described in the said specification to be employed for the purpose of heating air, is so defective, that it is incapable of producing any beneficial effect in the blast furnace. That the apparatus used by the defendants is wholly different from that described in the specification, and upon a different principle, and it was invented at the Calder Iron Works,

(c) *Ante* 275.(d) See specification, *ante* 274.

Notice of objections.

and other iron works near Glasgow, in Scotland, and by Mr. J. Jeffries and T. Patten, at Southwark, and not by the said Neilson.

That if the apparatus described by the said Neilson in his specification could be made to raise the atmospheric air to a sufficient degree of heat, it could not be used without a water twire for introducing the hot air into the blast furnace. That the apparatus which the defendants do use, and any other apparatus which would be capable of raising the atmosphere to a sufficient degree of heat, could not be applied to the blast furnace without the use of a water twire.

That it is alleged in the said specification, that the size of the air vessel must depend upon the blast, and on the heat necessary to be produced; that for an ordinary smith's fire or forge, an air vessel or receptacle capable of containing 1,200 cubic inches will be of proper dimensions, and for a cupola of the usual size for cast iron founders, an air vessel capable of containing 10,000 cubic inches will be of a proper size. For fires, forges, and furnaces, upon a greater scale, such as blast furnaces for smelting iron, large cast iron founders' cupolas, air vessels of proportionally increased dimensions and numbers will be required; whereas, in order to produce the effect required, the heating apparatus ought to be made of such a construction that the surface exposed to the action of the heat should be in proportion to the quantity of air required to be heated, and that instead of the vessel or receptacle being enlarged when a greater quantity of heat is required, the heating apparatus must be reduced in size, and the surface increased in extent, so as to obtain the maximum of heating surface in proportion to the quantity of heated air required.

That it is therein alleged, that the air vessel or receptacle may be conveniently made of iron, but as the effect does not depend upon the nature of the material, other metal or materials may be used; whereas, in fact, no other metal can be used which will effect the desired object so well and at such small expense as iron. Also, that the sizes and proportions of the air vessels mentioned in the specification, rendered the alleged invention inoperative and useless. The defendants further object, that the said invention, as described in the said specification, is of no public use or benefit; that the heated air cannot be introduced into smelting furnaces by a simple pipe as mentioned in the said specification.

Plaintiffs' case.

Sir W. *Follett* for the plaintiffs: The plaintiffs are the proprietors of an extremely valuable patent for a discovery of the greatest importance, and whatever other points may be urged in the case, no one will dispute the great advantage of the discovery. It is scarcely possible to exaggerate its importance: there has been nothing discovered in modern times which has

so considerable an effect on one of the greatest manufactures of this country—the manufacture of the smelting of iron. It enabled persons to bring into operation and into play blast-furnaces of iron and of coal in different parts of this country, that before this discovery it was thought impossible to apply to the smelting of iron. It has been in use now for many years; like many other valuable discoveries, not at first duly appreciated, it is now perfectly understood, not only in this country, but, I believe, also on the continent; and up to this time, I believe, Neilson has always been considered, both in this country and on the continent, as the inventor and the discoverer of this process; he has had the advantage of the patent; and, undoubtedly, I do not say that this patent has not been a most valuable one, and that it is not now a most valuable one. It dates as far back as the 11th of September, 1828; it will therefore in the month of September, 1842. It has a short time to run; but although it has a short time to run, of considerable importance to the proprietors, that it should not be infringed during that time.

Before this invention the blast was produced by a blowing machine, as a pair of bellows, it then passed through the regenerator, and entered in a cold stream into the furnace; and at that time there was a very strong opinion entertained, not only by the manufacturers, but by persons who had scientific knowledge on this subject, that it was better for the purpose of smelting iron that the stream of air which was so produced by the blowing apparatus should enter the furnace cold. It had been observed that the furnaces for the smelting of iron worked much better in the winter than in the summer months, and the witnesses had thence concluded, that it was better that the air should enter the furnace cold; and so far had that notion spread, that even the great iron manufacturers, who in the course of this case will be called before you as a witness, had thought it to be of so much importance, that he was at considerable expense to prevent any heat being communicated to the air passing into the furnace. The air, then, at this time, was always introduced into the furnace cold.

Now Mr. Neilson, who is a person of very considerable scientific attainments, and also of very great practical knowledge, was led to conceive a contrary notion, which, I believe, originated from observations that he had made in the common practice of a blacksmith; from these observations and various experiments, he came to a conclusion different from that which prevailed in the world, and he conceived that the effect upon the process for the smelting of iron would be very considerably improved by introducing the air into the furnace hot instead of cold. Previous to this discovery, coal could not be used in its solid state, but now you may use the coal in Scotland,

Sir W. Follett
for the plaintiffs.

which is a great deal worse than the coal in Wales. The iron ore which was sent away from the places producing it to other parts, in consequence of the expense of converting the fuel into coke, is now manufactured into iron at those spots. And there has lately been a still further advantage in consequence of this discovery, which is the subject also of a patent, which is now in litigation in another court, but which has shown the extraordinary effect at least of this patent of Mr. Neilson's. In a considerable part of Wales there is a coal called stone coal, or anthracite, which could not be used at all for the smelting of iron. Since this discovery of Mr. Neilson's, it has been found that the stone coal, or the anthracite, may be used as fuel effectually, and equally well with the other species of coal. This was discovered by a gentleman of the name of Crane, who has taken out a patent for it. Mr. Crane, of course, does not pretend to say that he has any right to interfere with the patent of Mr. Neilson until Mr. Neilson's patent has expired. He says, I have made a discovery which may be superadded to that, and I am entitled to protection for my discovery of the use of this anthracite coal; but he cannot use the hot blast, nor bring his patent into force, until the expiration of Mr. Neilson's patent, without a license from him. He has obtained a license from Mr. Neilson, and under that license it is that he is now working his patent, and that he has taken out a patent for the use of the anthracite coal.

Now, I stated that the principle which Mr. Neilson had considered was defective in the old mode of smelting the iron, was in applying the blast cold, and that he considered that a great improvement would be made by applying it in a hot state. Then, having satisfied himself of that, he has taken out this patent, and in applying to practice the principle which he says may be so advantageously used in the smelting of iron, he does not at all interfere with the blast apparatus, nor with the old furnace, or the mode of filling the furnace, or of applying the fire, or any of the old processes of smelting iron; but his plan is, to have between the blowing apparatus, that is between the regulator, which was a part of the blowing apparatus in the old system, an air vessel or vessels, which shall be air-tight, or tight enough to receive the air, that those vessels shall be subject to heat, that they shall be placed over the fire and heated, and that the air from the blowing power should pass into those air vessels so subject to heat, so as very materially and considerably to increase the temperature of the air, and then, that from those air vessels it shall pass along the tubes in the usual way through the arches or twines into the furnace. The consequence, therefore, will be, that by adopting this mode of placing the vessel or vessels between the blowing power and the furnace, and heating those vessels, the air will pass through

vessels which are subject to the fire, which will become hot, A.D. 1841. and then enter the furnace in a heated state.

Now, there is no doubt that this is a simple process, and, like most other discoveries when once made, appears to be very easy to be carried into effect. But certainly the smelting of iron had been conducted in this country, and had been conducted on the continent for a great number of years, and nobody had ever thought of, or rather applied the invention, till Mr. Neilson took out his patent in 1828. I say that, because I am satisfied on the evidence that will be the result. There is a statement here, that the invention of Mr. Neilson is not new. I shall prove conclusively to you that Mr. Neilson's invention is new, that it was not used in this country, that it was not known in this country, that he was the inventor and discoverer, that he found out the principle, and that he showed the mode in which the principle could be practically carried into effect, and that he did it in the way that I have described to you, by placing the air vessel or air vessels between the blowing apparatus and the furnace, heating those vessels, and then passing the air through those vessels and through a tube into the furnace.

I am sure, gentlemen, that you will feel what I believe now is a common feeling on this subject, that where a party has made a valuable discovery of this kind, where it has been owing to his own science and intellectual acquirements and practical knowledge, that at least he is entitled to the protection for the limited period of fourteen years, which the law allows. The feeling is not now as it was at one time, to be astute to find out modes of upsetting or destroying patents, but it is a much more common sense view of the subject now, that a man who has applied his science, his intellect, and his knowledge, ought to derive some profit from the invention and the discovery which he has made, and Mr. Neilson and the other gentlemen say, we are entitled to that protection down to the month of September, 1842.

In order to make intelligible the objections which are made, I must pay attention to the specification. (The learned counsel read and commented on the specification.) The defendants say, that they have not been guilty under the circumstances of an infringement of this patent. Now, Mr. Neilson says—I do not claim any particular shaped vessel, I do not claim any particular sized vessel; the vessels may be of different dimensions, they may be of different shapes, they may be different numbers, that will depend on the furnaces in which they are used; and, moreover, if you once apply this invention and discovery of Mr. Neilson's, and use a vessel of a particular shape, and in the course of time find that a vessel of a different shape may answer better, that it may save fuel for instance, or

Sir W. Follett
for the plaintiffs.

increase the heat, you are perfectly at liberty to alter the shape of the vessel or the size of the vessel through which the air passes; but the patent cannot be evaded in that way. Whilst Mr. Neilson's patent is in force, every vessel, no matter what its shape, no matter what its size, through which the air passes from the blowing power for the purpose of being heated to go into the furnace, would be protected and covered by this patent, because the patent is for that discovery of applying the heated air to the furnace, and pointing out the mode in which that heated air may be applied. Now, Mr. Neilson never could, nor could any one who was intending that this should be of practical use or benefit, have laid down any particular mode or shape in which these vessels were to be constructed. Any person of ordinary skill would know this, that the larger the surface of the vessel which was exposed to the fire the greater would be the heat, therefore you would get the greater heat by making your vessel in such a way as to expose a larger surface to the fire. You might also by the construction of the vessel economise the fuel, which was placed, not in a furnace for smelting, but in a furnace for heating the vessel through which the air passed. That may be done by altering the shape or size of the vessel, and the consequence is, that although this discovery of Mr. Neilson's is now in general use in this country, the forms and size of the vessels vary at different times and places; but whatever be the form, whatever be the size of the air vessel or vessels through which the heated air passes, I say on the part of Mr. Neilson, and I am quite sure I shall have my lord's sanction for it, that this patent covers any attempt to pass the air from the blowing power through an air vessel which is heated, and then conducting that air in a heated state into the furnace (e).

Now, with respect to the vessel used not being an infringement, I cannot conceive for one moment that any question or doubt can arise on the subject at all. I would concede, if it were necessary for the purpose of this argument, that this mode of constructing the vessel is an improvement upon the old. It may be such an improvement, for aught I know, as would have entitled the party who discovered it to a patent; but that was not the defendants, they did not invent it or discover it, because it was in common use, and in use by a person who had a license from the plaintiffs; this may be a great improvement upon the

(e) The learned counsel described various kinds of vessels which have been and were at the time in use, and particularly that used by the defendants, which consisted of a series of pipes of a curved or arched form, communicating with two straight pipes; stops being placed in the

straight pipes, alternately between each arched pipe, so that the air admitted at the end of one of the straight pipes would traverse every pipe before it escaped, the fire to heat the pipes being placed under the arched pipes. See the vessel described by Sir J. Campbell, *post* 304.

vessel or the vessels that were first used ; but this would A.D. 1841. the least interfere with Mr. Neilson's patent.

Mr. Neilson has discovered the principle of applying the air to the furnace, and shown the mode in which that can be practically carried into effect by passing air through a vessel and, and subjecting the air to the action of heat in that vessel before it enters the furnace, that is the essence of his invention, and that it is which he is entitled to be protected in ; no one who makes a discovery of this sort could be entitled to any advantage from it whatever, except so far as he had the permission of Mr. Neilson, or as he derived authority from Mr. Neilson, to use the principle of Mr. Neilson's patent. For were otherwise, you will observe in one moment that Mr. Neilson, notwithstanding the great advantage of this discovery, the great national benefit that it is now conferring upon the country, may be totally deprived of all remuneration of every sort and kind, because it would be only for the parties to say, I will use a vessel of a different sort, or I will use tubes or pipes which pass in this way, I do not use a square vessel, I do not use a round vessel, I use a vessel of this sort ; they will have a right to say at once, Mr. Neilson is not entitled to protection of his patent at all. I believe no doubt can be entertained of it ; I say so unfeignedly, and I am quite satisfied that my counsel will tell you so, and that under this specification Mr. Neilson is entitled to the full protection of the principle which he has discovered, and which he has practically found the means of carrying into effect ; and that so long as his patent is in force he is entitled to the advantage of that principle and its practical application of it (f).

It is said that the specification is not good ; but persons of every class will be called as witnesses, who will all say that it is perfectly plain and intelligible ; that no person acquainted with the business of smelting iron could doubt its meaning, or be in any difficulty in carrying it into practical operation.

Lastly, the invention is said not to be of any public use ; but what can be the meaning of such a plea I know not, because if any invention that ever was discovered was of public use, this is it ; there is none which has produced so great a revolution or so great a saving in the manufacture of iron, and occasioned such great changes both in England and Wales.

* * * * *

Sir J. Campbell, A.G., for the defendants : Gentlemen of the jury, I have to address you on behalf of the defendants in this

(f) The learned counsel then proceeded to comment on the alleged prior inventions mentioned in the notice of objections ; as to which, see ante 274-5.

(g) It will be unnecessary here to give any abstract of the evidence of the plaintiffs' witnesses. The more important portions of that evidence will be found in the summing up of the learned judge.

Sir J. Campbell
for the defend-
ants.

cause, and the question that you will have to determine is, whether the defendants have infringed a valid patent of Mr. Neilson's? There has been read to you an admission which they were at all times ready to make; there has been here no disguise, no concealment; they have openly done and proclaimed to the world what they have done, which is making use of the apparatus that now is before you; and what is that apparatus? It consists of a series of pipes, two of them horizontal and the others vertical, and by this apparatus the air being introduced into one of the horizontal pipes, there is a stop hereabouts which prevents it from going further in that horizontal pipe. It is then obliged to cross over to the other horizontal pipe. It then makes a progress in that horizontal pipe until there is another stop, that makes it cross over again to the other side; and so it traverses from side to side, until at last, passing through a great number of these heated tubes, it reaches a temperature of 600 or 700 degrees, and at that temperature it is introduced into the blast furnace by means of the water twine. That is one process, and you are to say, under my lord's direction, whether there is any thing in point of law to prevent the defendants from manufacturing iron by the assistance of that apparatus.

There is no doubt that the application of the hot blast to the making of iron, according to the present practice, is an improvement; but why was the patent a dead letter for nearly half its term? My learned friend, Sir W. Follett, said that the greatest discoveries shock old habits and notions, that reason and experience and time are necessary for overcoming the prejudice. But the fact is, that the invention was a failure until the pipe or tubular form of vessel was introduced. The specification gives no information by which the invention could be successful. And is it to be endured, that if there is a new mode which is discovered of which Mr. Neilson had no notion—if there is a new mode discovered by which hot air may be advantageously employed in the smelting of iron, that all attempts to put that in force are to be treated as illegal and wrong? That is not the law. The law of England respecting inventions is founded on reason, and justice, and public policy. It is this—that when there has been an important discovery in the arts and manufactures, the discoverer is to be rewarded by having the exclusive use of it for a certain period of years; but then there is a condition imposed upon him—there is a bargain; in consideration of his having this monopoly, he must point out to all mankind how the invention may be used, and he must do that in a manner which admits of no doubt, which any person can understand, which any person can put in practice. There is not the smallest ground for saying that Mr. Neilson has made the supposed discovery of this apparatus which lies before me, and that he has described it in his specification; for unless

has described what substantially amounts to this in his A. D. 1841. specification, then either his specification is bad, or there has been no infringement of the patent on the part of the defendants.

The title of the patent has not the most distant allusion to hot blast; it will apply as well to the cold blast. My lord I see that this is not at all for any alteration in the temperature of the air; it is for an improved mode of applying air, altering the quality of the air. This was a clear deceit upon the crown in the granting of this patent, if Mr. Neilson had had in his mind that it was the air that was to be heated; and being in his mind that the air was to be heated, he says that he has found out merely an improved mode of applying air to produce heat in furnaces; would not that apply equally to the cold blast as the hot blast, because in the cold blast you do use cold air for producing heat in furnaces. Then why, if he knew at the time he took out this patent, if he intended that the air was to be heated before it was introduced into the furnace—that is the principle upon which he relies—why did he not say so? Why say that under such a title he had no right at all to specify what we call the hot blast. That is not an improved mode of applying air. What comes within the scope of that title, is an improved mode of merely making the common atmospheric air as it comes from the open air pass into the blast furnace. And if he had made any improvement of that sort, which well he might, then such an improvement might be specified under the title.

But supposing him to be at liberty to specify a mode of using the hot blast, is a specification for the beneficial use of hot blast sufficient? I will state what I understand to be the principle on the subject. There is a bargain between the patentee and the crown, representing the public. In consideration of the patentee enabling any person of common skill and experience to make use of his invention, the crown gives him the exclusive right to make use of it for the period of fourteen years. But not only in point of law impliedly, but expressly in the very terms of the patent, a condition is imposed that he shall specify the invention; that is, that he shall describe how it is to be carried into effect. The proviso obliges the patentee, by an instrument in writing under his hand, particularly to describe and ascertain the nature of the invention, and in what manner the same is to be performed. Now these things are described upon the face of the patent itself as conditional. He must not only state the nature of the invention, but he must state in what manner the same is to be performed; and he is to cause the same to be enrolled in the High Court of Chancery within six months next and immediately after the date of the said recited

*Sir J. Campbell
for the defend-
ants.*

letters patent. This period of six months is given for the express purpose of enabling the patentee in the intermediate time to perfect his experiments; to draw up a complete specification; to disclose to the world, not only the nature of his invention, but how it is to be carried into effect. The motive for giving six months to prepare the specification is, that he may have ample time to prepare such an instrument as will effectually answer the purpose that is intended.

*Requisites of
specification.*

Now, what ought that instrument to contain? I apprehend that this is the rule upon the subject. It is a fundamental rule on which all others for making and judging of a specification depend, that the secret must be disclosed in such a manner that men of common understanding, with a moderate knowledge of the art, may be enabled to make the subject of the patent. Nothing to invention, nothing to experiment. Extraneous matter, however learned, must not be introduced to darken it. Though it is addressed to the public in general, it need not be so circumstantial, or so explanatory, that persons entirely ignorant of the elements of the science from which the subject is taken may thereby alone be able to learn and use the invention. Nor, on the other hand, should the description be so concise as to become obscure. But it must be intelligible and useful to persons of moderate knowledge, not entirely ignorant but of moderate knowledge of that art to which it relates. The clearness of the description will of course depend upon the matter of the invention; but upon the whole it may be observed that if a person of moderate capacity, having a little knowledge of the science which led to the invention, can immediately see the method pointed out, and easily apprehend the purport for which the subject was invented, without study, without any invention of his own, and without experiments, the disclosure is fully and fairly made.

There are no diagrams, plans, and nothing whatever in the specification, to fix him to what the invention is. And before I proceed to the terms of the specification, I must draw my lord's attention to this other additional objection, that it is utterly impossible for any person who reads the title of the specification to say for what the claim is made; whether it is the application of hot air to the smelting of iron, or whether it is for some pretended general vague method which he supposes he has discovered. Gentlemen, if that were so, that again would be a fatal objection, because although this is not an odious monopoly, it is a monopoly during the currency of the patent, the public are entirely excluded from the use of the process that is legally covered and protected by the monopoly. Therefore the law requires that confines shall be distinctly and broadly marked out, so that the public may know whether

they are exercising a legal right, or whether they are infringing the property of another. It is, therefore, indispensably necessary that the specification, taken together with the title, should distinctly denote what it is that the patentee claims as his invention, and of which he says that he is to be entitled to the exclusive use during a period of fourteen years. Now, looking at his title and specification, what is it that Mr. Neilson says he is to have the exclusive use of? His title is, "improved application of air to produce heat in fires, forges, and furnaces;" then during fourteen years are all mankind to be debarred from making any attempt at improving the application of air to produce heat in fires, forges, and furnaces? Well, then, when you come down to what he specifies, what does he specify? Does he specify a principle? Does he claim all modes by which heat is to be communicated to the air between the blowing apparatus and the furnace? I think my learned friend says that he does. He says that any mode whatsoever by which, in the intermediate space between the regulator (which is taken to be part of the blowing apparatus) and the blast furnace, heat is communicated, by whatever means, whether it be in a sphere, or in a cube, or in an enclosed vessel—of course it must be an enclosed vessel—[*Parke, B.*: It is not necessary, because Mr. Botfield's patent is one in which it is not. If it is the application of heat to a furnace in Mr. Botfield's patent, it is not by heating the air in an enclosed vessel.] Not in that part to which your lordship refers. [*Parke, B.*: Therefore I suppose what he claims is every method of heating the air in an enclosed vessel of any shape or description, between the blowing apparatus and the furnace.] I suppose so. *Quod valeat non dixit* if he did mean to say so, he has not said so; and that is one of my objections, because he has said no such thing, and one of the uncertainties and one of the ambiguities of which I complain is, that he has said no such thing; and then, I say, that if he had said so, without more particularly designating the method by which his process was to be carried into effect, he would only have rendered his specification more vicious.

But now let us examine the terms of the specification, which as you observe is without any drawing whatever. I believe that the almost invariable practice now is to accompany a specification with drawings—and why? Why the specification should be a working plan, it should enable the mechanic to carry the invention into effect. The rule, my lord will remember, in Mr. Watt's famous case was this, that a mechanic acquainted with the steam engine before Watt's invention should be able to perfect Mr. Watt's invention. Mr. Watt's invention was held to be properly specified, because a common mechanic—the word mechanic is used—because a mechanic

A. D. 1841.

*Mr J. Campbell
for the defend-
ants.*

acquainted with the old engine before Mr. Watt's improvements, looking to Mr. Watt's specification and to nothing else, could make all Mr. Watt's improvements; and it was proved that they did make them. Here not a single instance is given of any person who, not having seen the apparatus before looking to the specification, made the apparatus and applied it to the smelting of iron. Notwithstanding all the pains that have been exerted—you see you have had witnesses called from Wales, from all parts of England, and from all the coal country and the iron country in Scotland—you have had scientific witnesses called merely to give speculative opinions—but you have had no one single instance brought before you of any person who, taking this specification in his hand, and not being previously instructed with the mode in which the hot blast was to be applied, constructed an apparatus whereby the hot blast was beneficially applied to the smelting of iron. Upon that ground I say, the plaintiffs' case entirely fails. (The learned counsel then proceeded to examine and comment upon the specification.) We have been told that this is a vessel where you have one horizontal tube, another horizontal tube, and a great series of vertical tubes communicating with the horizontal tube, and stops in the horizontal tube whereby the air is propelled and made to cross from side to side so that it may be properly heated; and this is called a vessel. Why, in one sense it may be a vessel, as if it were twenty miles long and consisted of five thousand pieces. Why, you may call it a vessel if you like, but the specification is to speak the common language of mankind; that is a vessel which would be understood to be a vessel in common parlance, or at all events by a person of moderate skill in the department of art to which the discovery belongs. Throughout there not only is no suggestion of a succession of different pipes, but that is clearly excluded, because it is supposed that there is to be one vessel. Just observe. It is admitted that there is only to be one vessel as to the smith's forge; it is admitted that there is only to be one vessel as to the cupola. It is quite clear that the patentee contemplated that the same process was to be adopted in the blast furnace, only increasing the dimensions of the vessel or having two, that is, two to go in at different times. [Parke, B.: "Dimensions and numbers." That is not multiplying the pipes; that is numbers *quidem generis* vessels as before described, of the same construction, and on the same principle. The specification shows that Mr. Neilson contemplated that the air was to pass through his vessel without interruption, without any stop or any thing to detain it against the heating surface; it was to go through in a current. Then as to the size; this is to depend on the blast and on the heat necessary to be produced. Thus, as the blast and heat to be produced are increased, so the size is

be increased. That is utterly false, for if you were to increase the size in that proportion you would utterly fail; you would have a form which would not give the heating surface. This, then, is an entire misdirection; instructions are given which, if followed, must produce an inevitable failure.

Further, the following passage, "the form or shape of the air vessel or receptacle is immaterial to the effect, and may be adapted to the local circumstances and situation," is totally false. The effect is producing heat in the air contained in the vessel; now it is perfectly well known, that although the air may be heated in a cube of a foot, yet if the cube be increased the air will not be heated at all. How then can the form be said to be immaterial?

There is another point, the omission in the specification of a mention of the water twire, which is entirely fatal. It is admitted that, without the use of the water twire, the hot blast cannot be beneficially used; the heat of the air is so great on entering the furnace, that unless there be some contrivance for cooling the pipe by which the heated air is injected, the application must fail.

For these reasons the specification is bad, and the patent cannot be supported. The legitimate object of the patent was the smith's forge and smelting cupola; for these Mr. Neilson might have had a valid patent, if he had entitled it properly and given a proper specification, but he has extended his patent beyond its proper limit, and endeavoured to embrace a subject on which he merely throws out a hint; in respect of the smelting of iron, it is a patent for an idea, not so much as a principle, and cannot therefore be supported (*h*).

PARKE, B., having stated the pleadings, proceeded as follows: *Parke, B., to the jury.*
Now, there is no question whatever in this case but that this *The summing up.* invention of the hot blast, as used at the time this action was brought and some time before, is not simply beneficial, but highly valuable to the arts, and a very important discovery has been either made by Mr. Neilson, or he has led to a most important discovery, and there is no doubt that the invention he made was an invention which turned out to be ultimately an invention of the greatest utility, and I entertain no doubt or

(b) *Notice of objections to be considered as part of the pleadings.*—No witnesses being called on the part of the defendants, Sir W. Follett directed attention to the terms of the statute 5 and 6 W. 4, c. 83, s. 5, ante 260, n. a., respecting the notice of objections, and required them to be read. The question was then raised whether such reading at this stage of the cause would not give a right of reply.

Parke, B.: The words of the statute are, no objection shall be allowed to be made on behalf

of the defendant unless he prove the objections stated in such notice, not unless he prove the notice. I think it must be considered as a kind of notice appended to the pleas as a notice of set-off, and that therefore, in truth, the attention of the court should be called to it as part of the plaintiffs' case. Let them be simply read. The proper course would have been, I think, that they should have been read at the time of the pleadings being opened.

The objections were then read.

Parke, B., to the jury. difficulty myself in adopting the observation that has been made by Sir William Follett, as to the mode in which these questions

Patent rights are not to be tried with a view to their defeat.

of patent right are to be decided. Half a century ago, or even less, within fifteen or twenty years, there seems to have been very much a practice with both judges and juries to destroy the patent right, even of beneficial patents, by exercising great astuteness in taking objections, either as to the title of the patent, but more particularly as to the specification, and many valuable patent rights have been destroyed in consequence of the objections so taken. Within the last ten years or more, the courts have not been so strict in taking objections to the specification; and they have endeavoured to hold a fair hand between the patentee and the public, willing to give the patentee, on his part, the reward of a valuable patent, but taking care to secure to the public, on the other hand, the benefit of that proviso which is introduced into the patent for their advantage, so that the right to the patent may be fairly and properly expressed in the specification. Upon this occasion I have only to invite your attention to the evidence, and to desire you to decide all questions arising upon the specification, without any bias on either side, with no desire to give the public the benefit of this patent by tripping it up, but fairly to exercise your judgment between the patentee and the public.

Now, the best way of disposing of this case, I think, will be to take those questions in order upon which you are to pronounce your opinion; and the first is, whether the defendants have been guilty of infringing the patent? and I apprehend that there is no doubt they have, if the patent be a good patent, and if the specification be free from the objections that are raised to it; and if the specification is to be understood in the sense claimed by the plaintiffs, the invention of heating the air between its leaving the blowing apparatus and its introduction into the furnace, in any way, in any close vessel, which is exposed to the action of heat, there is no doubt that the defendants' machinery is an infringement of that patent, because it is the use of air which is heated much more beneficially, and a great improvement upon what would probably be the

If the invention consist in applying the air heated while in transitu, then, however great the improvement which the defendants' apparatus may be on that described in the specification, it is no less an infringement.

machine constructed by looking at the specification alone; but still it is the application of heated air, heated in one or more vessels between the blowing apparatus and the furnace, and therefore if it should turn out that the patent is good, and the specification is good, though unquestionably what the defendants have done is a great improvement upon what would be the species of machinery or apparatus constructed under this patent, it appears to me that it would be an infringement of it; therefore your verdict upon that issue would be for the plaintiff, provided it is for the plaintiff on the other issues. In case it should not be, there may be some little difficulty in dis-

being of that issue; possibly that difficulty may not arise (j). A.D. 1841. If it becomes necessary, I will give you directions on that part of the case.

The second objection is, that the said Neilson was not, at the time of the making the said letters patent, the true and first inventor of any invention for the improved application of air to produce heat in fires, forges, and furnaces, where bellows and other blowing apparatus are required. Now, upon the evidence in the case, none of the witnesses who have been called on the part of the plaintiff are aware of any invention similar to this; and there has been an account given by them—by two—of a discovery made by a Mr. Botfield, who is said to have taken out a patent, though we do not know exactly what it was. Botfield's discovery was never carried into effect; they say it was unlike a present mode of heating air, and according to the account that was given by those gentlemen who are acquainted with Botfield's process, it appears to be different, because the main principle of that discovery, according to their account, was the application of gas and flame to the easier smelting of iron stone in the furnace, and the introduction of hot air was only in addition, and that hot air came over the stove which was introduced into the wire hole, without being kept in an enclosed vessel (k). And it would appear that Botfield's invention was not the plaintiff's invention; therefore, that would dispose of the issue that the plaintiff was not the sole inventor, and also dispose of the issue, that this invention had been used before. The defendants say in one plea, that he was not the inventor, and in another plea they say it was used before; but there is no evidence of any such use, except in the case of Botfield,

(i) The difficulty here suggested frequently occurs in practice, and the question is, whether, supposing a defendant to have been doing precisely the thing described and claimed in the specification, the plaintiff would be entitled to the verdict on the issue of not guilty, if the patent should not be good. The decision of this question under the new rules is of considerable importance with reference to costs; and the single question is, whether in law a person can be guilty of infringing an invalid patent, whatever the ground of invalidity. In a recent case, *Radford v. Neild and Others, cor. Lord Denman, C.J.* (Trin. Vac. 1842), the defendants, who were colour printers, were using a particular method of arrangement of the pattern on the blocks, whereby they were enabled to print a complicated pattern of several colours, the cloth to be printed being advanced each impression of the block by some portion, as one-sixth of the width of the block. The defendants were charged with infringing the plaintiff's patent, both in respect of the arrangement of the pattern, and the advancing the cloth (or block) by spaces less than the whole width of the block. The defendants (amongst

other pleas) denied the infringement and the novelty of the invention (at least so far as it related to the alleged infringements), and that the parts in respect of which the infringement was alleged were not in themselves the subject-matter of letters patent. The defendants had a verdict on the issue as to the novelty, the rest of the case not having been submitted by the Lord Chief Justice to the jury; whereupon *Kelly and Webster* contended that the defendants were also entitled to have the verdict on the general issue entered for them, both on the ground of the above verdict, and assuming that the parts in respect of which the infringement was charged were not the subject-matter. Sir F. Pollock, A.G., M. D. Hill, and Crompton, contra, contended that it was no less an infringement, however invalid the patent, whether from want of novelty or the invention not being the subject-matter of letters patent.

Lord Denman, C. J., directed a verdict for the plaintiff on the issue of not guilty, and the jury were discharged on the other issues.

(k) See Botfield's specification, *ante* 274, n.

Parke, B., to
the jury.

which appears to me, if you believe the witnesses, not to apply to the present case; therefore, probably you will have no difficulty in disposing of the second and third pleas.

But now comes the important plea in the case, as to the specification. And it will be necessary for me to draw your attention to that specification, and then apply the evidence to it; and first of all I will say a word upon the subject of the title to the patent which objection the Attorney General has taken to-day, and which appears to be included in the objections which have been read, though not very distinctly pointed out in those objections (1). It is said that the title of the patent renders the patent void, because no one would conclude from that title that the invention was the discovery of a process for introducing hot air into the furnace. The title to the patent is, a patent for the improved application of air to produce heat in fires, forges, and furnaces. In my judgment, this question does not arise either for your decision or for mine, if there be any objection upon it, and I rather apprehend it is an objection on the record, there being no pleas especially directed to the objection of the title to the patent. However, my present opinion certainly is very strong, that the title to the patent is not defective; that it is capable of embracing an alteration by introducing hot air. It will suit either one or the other, and the specification and patent together make it clear what the discovery was: it was the introduction of hot air by means of heating it before it was introduced into the furnace, between the blowing apparatus and the furnace; and unless this title had been really meant to be applied to some other discovery quite of a different nature, and afterwards by the specification applied to this, it does not appear to me that that generality of the title of the patent would make it void. It is quite different from the case (m) which has been referred to, where the patent was for preparing malt; and upon looking at the specification (as any body would infer from the title that it was malt to be used in the brewing of beer, ale, or porter)—upon looking at the specification itself, it was not in truth a preparation of malt for the purpose of brewing, but a preparation of malt for the purpose of colouring; and therefore entirely distinct from the title of the patent. Upon that ground that patent was held to be void. But in this case the description seems to me to suit the subject which is detailed, to the extent that it is detailed in the specification, and to be applicable to that; and there is no evidence in the case to induce you to believe that that was not the plaintiff's real discovery, which he meant to cover by the patent. Therefore, it seems to me

No plea directed
to the title.

The specification
is to be
taken in connexion
with the
letters patent in
determining the
validity of the
title.

Generality of
title *per se* no
defect,
if employed
honestly.

(1) The notice of objections states, that it is doubtful whether the title is for the invention

of the application of hot air, or only an improved mode of applying hot air. *Ante* 296.

(m) *The King v. Wheeler*. 2 B. & Ald., 348.

t, whether this question arises upon the record, or whether it A.D. 1841.
me that can be disposed of by us (I think it arises on the
ord), that objection I think cannot prevail.

We now come to the specification (the learned judge then
d the specification). The questions arising upon it are some
them for my decision alone, and some for my decision with
r assistance. Now my impression of the meaning of this
cification is, that the patentee claims this invention; he
ms the discovery of heating air in any vessel of any size,
vided it is a close vessel, and exposed to heat between the
wing apparatus and the furnace. He states the size of the
el and the form of the vessel to be immaterial (n). Now
a respect to that clause, I own my strong opinion is, that
; clause is an incorrect statement, and an untrue one; and
efore my opinion certainly is, as at present advised, that that
ig clearly untrue vitiates this specification, and prevents the
ent from being a good patent. Nevertheless, I shall ask
r opinion, whether notwithstanding the introduction of that
se into the specification, such persons as would be likely to
k under the patent would, by their own judgment and good
se, correct that error in the patent. I am afraid you cannot
w the experience of competent workmen, to which I shall
xt your attention afterwards, to explain or alter the precise
ds of the specification, or to correct the mistake in it;
efore, certainly, my judgment would be, that that is a defect
he specification which is not cured; but whether it may be
ed or not by the application of science, which is proper to be
m into consideration upon questions of this kind, is a
ter which will be disposed of by the court hereafter. My
ent impression is, that it is not; and therefore, that the
ent specification is invalid. However, it will be necessary
you to pronounce your opinion upon other questions which
e upon the specification, which questions I will put to you.
low, then, understanding the meaning of this specification
e the sense I have given to it, that he claims as his invention
ode of heating the blast between the blowing apparatus and
furnace, in a vessel exposed to the fire, and kept to a red
t, or nearly (and which description I think sufficient), of the
; of a cubic foot for a smith's forge, or the other size men-
ed, or of any shape, these questions will arise for your de-
on. It is said that, understanding it in that sense, the
ent is void, because there are no directions given for any
de of constructing the instrument. But understanding the
ent in that sense, it seems to me, that if you should be of
nion that a person of competent skill (and I will explain to

The claim in
the specification
is for heating air
in any vessel be-
tween the blow-
ing apparatus
and the furnace.

The words are, "the form or shape of the vessel or receptacle is immaterial to the effect." *Ante* 273.

Parks, B., to the jury.

It is not necessary that any particular form of vessel should be described, if a person of competent knowledge would construct a vessel productive of some good effect.

The amount of beneficial effect immaterial.

By competent skill and knowledge, is meant ordinary skill and knowledge, as that possessed by practical workmen.

you what I mean by that) would nevertheless construct such a vessel as would be productive of some useful and beneficial purpose in the working of iron, that the patent nevertheless is good, though no particular form of vessel is given. Then it is to be recollected that this claim is a patent right,—a right of heating in any description of vessel; and in order to maintain that right, it is essential that the heating in any description of vessel, either the common form, the smith's forge, the cupola or the blast furnace, that it should be beneficial in any shape you may choose for all those three purposes. Now, then, I think, therefore, that this is correctly described in the patent and if any man of common understanding, and ordinary skill and knowledge of the subject, and I should say in this case that the subject is the construction of the blowing apparatus, such a person as that is the person you would most naturally apply to in order to make an alteration of this kind; if you are of opinion on the evidence, that such a person as that, of ordinary skill and knowledge of the subject (that is, the construction of the old blowing apparatus), would be able to construct, according to the specification alone, such an apparatus as would be an improvement, that is, would be productive practically of some beneficial result, no matter how great, provided it is sufficient to make it worth while (the expense being taken into consideration) to adapt such an apparatus to the ordinary machinery in all cases of forges, cupolas, and furnaces, where the blast is used; in that case, I think the specification sufficiently describes the invention, leaving out the other objection (to which I need not any further direct your attention), that there is not merely a defective statement in the specification, unless those conditions were complied with, but there is a wrong statement. But leaving out the wrong statement for the present, and supposing that it was not introduced, then if, in your opinion, such a person as I have described—a man of ordinary and competent skill—would erect a machine which would be beneficial in all those cases, and be worth while to erect; in that case it seems to me that this specification is good, and the patent, so far as relates to this objection, will be good. It is to be a person only of ordinary skill and ordinary knowledge. You are not to ask yourselves the question, whether persons of great skill—a first-rate engineer, or a second class engineer, as described by Mr. Farey—whether they would do it; because generally those persons are men of great science and philosophical knowledge, and they would upon a mere hint in the specification probably invent a machine which should answer the purpose extremely well; but that is not the description of persons to whom this specification may be supposed to be addressed—it is supposed to be addressed to a practical workman, who brings the ordinary degree of knowledge and

the ordinary degree of capacity to the subject; and if such a person would construct an apparatus that would answer some beneficial purpose, whatever its shape was, according to the terms of this specification, then I think that this specification is good, and the patent may be supported so far as relates to it.

At first sight it would appear, that the patentee had supposed it, in order to adapt what would answer in the case of a common forge, and would answer in the case of a cupola, to a larger description of furnace, it was only necessary to increase its size and dimensions of the vessel. It would at first appear to be so, but there are qualifying terms introduced into the specification itself, because it is said they are to be varied according to the blast and the heat necessary to be produced; and even, if you are of opinion that such a person as I have already ascribed would make an alteration and qualify the patent in such a way, because here there is a qualification in the patent itself, so as to make the vessels applicable to the smelting furnace, as well as they are applicable to a common iron forge or a cupola; in that case, also, I think the specification will be good, and you are to say whether you are satisfied that that would be the case upon the evidence which has been adduced in the cause. It will be necessary, therefore, for me to draw your attention to that evidence. I do not propose to read the whole over to you, but the main points of that evidence; and with reference to the question, whether or no you think the specification could have been worked upon to a beneficial effect, so as that a vessel of any size would answer, according to the opinions of some of the gentlemen who have been called, there is no difficulty as to constructing a vessel of a particular shape; there is no doubt that a man of very little capacity or information on this subject would, according to the terms of the patent alone, construct a vessel—we will say a long box or a tube—there is no great science required to do that according to the terms of the specification; and if upon the evidence you are of opinion that that would answer a beneficial purpose, so as to make it worth while to introduce that alteration into the blowing apparatus, that is, that the saving in fuel and the advantages to be derived would compensate the additional expense—if that be the case, then there is no doubt that the patent is good so far as it relates to this. You will have to say, whether you think upon the evidence that is the fact.

Now, with reference to that part of the case, I may observe, that I believe you will find there is no person who has practically tried the cube or the oblong square without some addition to it. It appears that Mr. Neilson, when he was employed before the specification was taken out, at the Calder Iron Works, supplied them, not with a square box, but with a cylinder; first

Parke, B., to the jury. of all with partitions, and afterwards without, about which I will say a word by and by; but there is no evidence in the case

It is not necessary that the vessel described should have been actually tried and proved to answer; the evidence of scientific persons, that it would answer, may be sufficient.

of any person having actually tried a square box, and of a square box actually answering. There is this opinion of a man of science upon the subject—that it would answer; but there is no evidence that that square box has been tried and has answered; nevertheless you may be so well satisfied with the opinion of these men of science as to entertain no doubt that it would answer. There was, it appears by Mr. Russell's evidence, at Wednesbury, something that looked like a square box; but upon looking at that there were other conditions; it was not a square, but a square with a hole in the centre of it to admit the flame, so that it did not exactly answer the description of a square box, and a larger surface was exposed to the flame there than would have been in the square box or oblong square. You will say whether you are satisfied of that. The square box seems to be the most simple, and seems to be also the most objectionable form that could be used; for one gentleman has said, that no person would think of introducing it—perhaps it might require some science to discover that; but supposing you are of opinion that a square box would answer a beneficial purpose, and that it was a description of apparatus which could be made pursuant to this general description of evidence, and would really answer, then I think there can be no doubt that the specification would be good.

Before, however, I draw your attention to what the witnesses have spoken in detail, as to the mode of operating under the specification, it may be as well that I should call your attention to one other objection which is raised; and that is with respect to a question which arises from an answer given by one of the first gentlemen who were called, who gave it as his opinion, that in order to adapt the hot air blast process to the furnace, it was necessary to introduce a different description of twire. You will find that some of the witnesses gave it as their opinion, in the early part of the case, that this apparatus could not be usefully employed unless there was an alteration of the common twire, and some other was substituted. It appears that in the ordinary mode of supplying the furnace with the cold blast, these twires, being metallic cases of the holes in which the pipes are introduced to supply the blast, are by the great action of the heat burned or melted, and it becomes frequently necessary to renew them. But it is agreed on all hands that the introducing hot air, especially at a temperature of 600 degrees, at a place where the heat is very great, would have a great tendency to melt those twires much more than if the hot air was not continually going through them; and according to the opinion of two of the gentlemen who were called on the part of the plaintiffs, they say that the process could not be beneficially

employed unless there was either a water twire in which the water circulates and is constantly kept cool by the circulation, or some other equivalent protection for the entry of the pipe into the furnace. Now, if that should be your opinion, another objection to the specification is open—it omits to make all mention of water twires or other protection; for if this apparatus would not be beneficial without them, then in that case it is of no use to the public as it is described in the specification, and the specification would be bad. That, I think, would be clear. Then the question of fact arises, whether you are satisfied upon the evidence of those gentlemen, one of them a practical gentleman; and I call your attention to what has been spoken by Mr. Penrice, who says—that in point of fact they did use at the Calder Iron Works twires of the ordinary description, dry twires, and that they continued to use them for two years, and also continued to use this process beneficially. Therefore that is evidence to be set off against the other. Whether they could use the process in the simplest form beneficially, is left in matter of doubt; but unless they could use the process in the simplest form in which a man would make this according to the specification, it appears to me that the objection as to the twires is also a good objection to it, because then that ought to have been introduced, and it is not beneficial unless it is introduced. Therefore it is not a good subject of patent unless those twires are added to the apparatus as described in this specification; and on that ground it would appear to me that the specification was defective. Then you will have the goodness to attend to that evidence; and if you come to the conclusion, that without the water twires, though more beneficial with them, there still would have been an apparatus which would work beneficially, and be worth while to set up, the objection founded on the water twires vanishes.

Now, gentlemen, with respect to the evidence:—Mr. Russell (the first witness) says, that looking at the generality of the specification, and the complicated form of the arrangements in such a case (*semble*, present improved state), a workman would not be able, directed and instructed by the specification alone, to complete such an apparatus as would be most efficaciously used. That, however, is not the exact point. The point is, whether it can be used beneficially, taking it in the simplest form. If, in order to use it beneficially at all, experiments were necessary, about which a good deal was said by the Attorney General, then the specification would be void. If it were necessary to use experiments in order to have the benefit of the invention in which it is claimed by the specification, in that case it would be void; but if in this case it is only necessary to have recourse to experiments in order to have the full benefit that the subject is capable of, it appears to me that it would not

The omission to mention in the specification any thing which may be necessary for the beneficial enjoyment of the invention, is a fatal defect.

But *aliter* if such omission go only to the degree of the benefit.

If the apparatus described can be used beneficially in its simplest form, it is no objection that great improvements may have been made.

Parks, B., to the jury. void the patent, because, though it is a subject beneficial in its simplest form of application, it is a vast deal more useful when the improvement takes place; and in order to make the greatest improvement, unquestionably many experiments are necessary; and even at this very moment, notwithstanding the great improvements that have taken place, there is no doubt that the matter is not in that state of improvement which in all probability it will be in the course of a few years. It does not appear to me, therefore, that what the Attorney General has dwelt upon with reference to the evidence, all the evidence in the case, that that affects the patent. If experiments were necessary to produce any degree of benefit under the patent, then, in that case, I think the specification is void, for it does not give the requisite degree of temperature; but if the simplest form would be productive of benefit, it appears to me that the specification is good.

Mr. Jessop, who has been for forty years in the iron trade, describes the cold blast, and the impression he was under, that inasmuch as the works operated better in winter than in summer, it was a good thing to have the pipe conveying the cold blast protected from heat by means of being enclosed; and the next witness, also well practically acquainted with the subject, was of the same opinion, and painted white a portion of the regulator in order that the air might come in a cool state. This turned out to be a perfect mistake, as subsequent experience has shown, and that the cold has nothing to do with it; that it was only from the dryness of the atmosphere; but there is no question about the hot blast being a great improvement. Mr. Jessop describes the saving consequent on the adoption of the hot blast, and says—"I have read the specification, and I do not think that any one practically acquainted with the subject would have the least difficulty in constructing the apparatus." Now, this is the opinion of a gentleman well acquainted with both the principle and the practice: "We used the water twires with the cold blast, and I heard of it in other places; we used it occasionally when the blast did not enter the furnace properly; when the heat was of a nature to injure it, we used it with the hot blast regularly. It is possible to use it without, the effect being that the twire would be soon destroyed, and it increases the expense." But, on cross-examination he says, it is possible to do without the twire, but not without some substitute. "I think we could not use the hot blast without either the water twire or some other protection different from that which was used in the cold blast." If that is right, the specification is defective; but whether it is right or not, you are to decide. "I have not tried myself experiments at any temperature below 200 degrees Fahrenheit to ascertain whether it is worth the expense; but if a less degree

of heat is required, there would be less fuel, and any degree of heat would make it worth while to adopt the alteration, therefore any description of vessel will produce some degree of heat." Then he describes what the water twires are. "I believe they have always been used in refineries. I have known them some years; but not the same sort of water twire has been used. There was water at the sides and the top on those, but not at the bottom. We employ improved twires in our refineries. We never used the water twire for the hot blast. For the cold blast we used the water twire. The sides of the furnace began to burn, then we applied the water twire. Sometimes a twire would last only a night, sometimes it would last for six months. It would not be prudent, but it is not impossible to do with the common twire when the furnace is hot. If the supply of water were cut off, and the twire melted, then the inconvenience would be that the works would stop for two or three hours—that is, the blast would not go on. Of course the iron ore would be made in the furnace. The blast would not go on for two or three hours, until that was repaired." That is an inconvenience which he thinks would prevent the adoption of the hot air process. "Even water twires," he says, "would sometimes melt; with the cold blast we did not use it." Then the question is—"Is it not indispensable to have the twires when you use the hot blast?" The answer is—"I do not know that it is indispensable, but it is desirable." He has not yet come to his final answer. "I think we could carry on our works beneficially without the water twire, but not so beneficially as with it. I think we could use the hot blast profitably without the water twire, but we should use fire clay. I think that we could not beneficially use the hot blast without the water twire, or some other protection different from that which we use in the cold blast." He speaks of the Low Moor Works having gone on for a time; that they used the hot blast, and afterwards discontinued it. Then he had a retort plan; in fact, a tubular form. He is asked—"If you have a vessel with a sufficient heating surface, and bring the heat in contact with it, it will answer with a vessel of any shape? A box would not answer so well, because there is a large interior space which you do not bring in contact. You may accomplish the object by having the interior vessel or interior plates." Then he says, upon re-examination—"Any one who knows the process of smelting, would know that if heat were increased you must have recourse to some method of guarding the pipe; and he would naturally have recourse to a water twire, which was well known before." Now, I asked him that question ultimately; because no doubt this will be put in a different shape hereafter, to take the opinion of the court upon, whether that circumstance would cure this omission in the patent.

A. D. 1841.

Parke, B., to the
jury.

Mr. Mushett says—"I have been connected with iron works since 1792. I always used the cold blast, and never until this patent heard of the hot blast; there is no iron master who would not, with his workmen, arrange an apparatus for heating the air sufficiently, so as to produce a beneficial effect in the blast furnace. The water twires were sometimes used with the cold blast. It has been known for forty years that if in the aperture the twires melted the water twires would relieve that." He says, that one effect produced has been the manufacture of iron from ore which would not produce it before. He speaks also with respect to Botfield's patent, and he says that does not in the slightest degree represent the present invention. Then he says, "There is a feeling on the part of the iron trade, that the friction of the air in passing through is a bad thing. An iron master would not use a vessel of this sort which produced friction. The advantages of heating the air are counterbalanced by the friction." It appeared afterwards, from Mr. Farey's evidence, that there are two things to be attended to—the current of air, and also the heat, one being rather contrary to the other; and experience alone, and probably experiment, would ascertain what was the best. He says—"I have never seen any apparatus except in a tubular form; I never saw it in the shape of a square; and I never saw it in the shape of a box." He says—"In my opinion, a workman would form a straight vessel; that is from the prejudice he has to the tortuous form for the passage of air." He says—"I should have tried that which produced the greatest heat on the surface. I might have tried a cylinder, or long box, with a blowing apparatus, without any thing to direct the current of the air in the first instance. I should have made experiments in the first instance. I should at first make it ten or fifteen feet long." I have told you, that if experiments are necessary in order to construct a machine to produce some beneficial effect, no doubt this specification is defective. If experiments are only necessary in order to produce the greatest beneficial effect, in that case, I think, the patent is not void. "I should at first make it ten or fifteen feet long. The air would have been heated there, and carried into the blast furnace. It would have succeeded to a certain extent, which would give me grounds for persevering. I should have gone on with my experiments, if I had grounds for proceeding with my experiments." He says—"I have never tried the experiment, but I have no doubt the advantage arising from a heating vessel ten or fifteen feet long, supposing there was no farther improvement, would have counterbalanced the expense of setting it up." He is of opinion that, in the simplest form that would suggest itself to any one, there would be a beneficial result. "I have never seen the process so conducted. The next experiment would be to lay another hori-

If experiments
are necessary
for the produc-
tion of any be-
neficial effect,
the patent is
void.

metal pipe next to that. The next thing to try would be a A.D. 1841. communication pipe. I have heard the term condy pipe, but attach no meaning to it. I should have come to the result of using pipes from the specification alone, with experiments, perhaps five or six months, if I had gone on with vigour and perseverance. The quality," he says, "may be deteriorated by overcharging the furnace. Hot blast iron is sold at an inferior price." He says—"It is compensated on the whole by the greater production from ores which were stubborn before, and upon the whole the iron is improved; and looking at the specification, and seeing what is there mentioned as to a thousand cubic inches being required for the cast iron form cupola, and applying it to a smelting furnace, I should have increased, not the dimensions, but I should have increased the heating surface particularly; I should not have increased the dimensions solely. I do not know exactly the shape, but I could have tried to have got the greatest heating surface possible." That is looking at the specification. He says there is no reference to the heating surface in the specification. The vessel may be of any form, provided it contains ten thousand cubic inches. It speaks of capacity, not form; it leaves the man, as to the heating the surface, to the convenience of the manufacturer.

Mr. Penrice, a mining engineer, was in the employ of the Elder Company, and superintended the apparatus used in 1826. The cold blast was then used, he had never heard of hot blast, and he believes it was first used in January, 1829. He describes that it was first used with a malleable iron vessel, ten feet long, and thirty-six inches diameter, being a cylinder, it was interposed between the blowing apparatus and the furnace, with internal partitions. That was enclosed in brickwork. There was only one of them at first, and then there was another introduced, which had not these partitions in it. Now you should think the patentee knew that these partitions were useful, and omitted to state that in this specification, that would make the specification void. You will consider whether that was so. He does not seem to be fully aware of the nature of his own invention, for he tried another cylinder without any of these partitions in it, seeming to think that no advantage was derived from those partitions, because he sent another cylinder to the place without any partitions in it at all. It is plain which of the two would be most likely to answer, that that does not appear, I think, on the evidence. And, of course, if the introduction of these were necessary to make the square box or the round box operate beneficially, in that case the patent would be void, because that is not introduced as a necessary circumstance into the specification. Then he says in respect to the twines—"At first we had dry twines, and we

The omission to state any thing which the patentee knows to be useful, is a fatal defect.

Parke, B., to the jury. continued to manage with them for two or three years. Then we got the water twires afterwards." Therefore, according to his account, they used two cylinders, not a very improved apparatus, but a tolerably simple one. They succeeded in producing, if you believe him, a very great degree of heat, probably at least 400 degrees; and also they contrived to get on with dry twires, without introducing water twires at all, or any other substitute for ordinary dry twires, more capable of resisting the heat than they are. If you believe that evidence, and place entire reliance upon it, it would show that the omission of introducing twires into the specification was a circumstance that was not material to the validity of the patent. "They used this method," he says, "without intermission in 1857 when I left." He says—"I have read the specification. I think that no one acquainted with the making of iron would have any difficulty in constructing an apparatus from it." Then he says—"Mr. Neilson sent a man and a plan. The first apparatus was erected with the assistance of the man. The vessel which was put up was a cylinder made of malleable iron, thirty-four feet in its cubical contents. It was heated by a fire under it. The flame passed round it. It was enclosed in brick-work. It had four half partitions in it to drive the air against the sides. The partitions were connected with the outside, the object being to retard it, and drive it on the sides. That box was sent from Glasgow. We then put up a second machine in two or three days; I cannot say whether it was part of the original plan, or whether it was sent for to Glasgow." Probably it was a part of the original plan, because it was sent in two or three days; he could not tell, however, how long such an instrument would be in constructing. He says—"The second plan was a cylinder, made bottle-necked at the end, without partitions." So far as we learn from this evidence, it appears pretty clearly that he was not acquainted by any means with the full benefit of his invention. If he had known that the tubular form would answer best, he ought to have introduced it, and the specification would have been bad, upon the ground that he concealed the best mode of working out his own discovery. However, I think one may very well collect from the evidence as to Mr. Neilson's own acts, that he really was not fully aware either of the great value of his patent, and still more, was not fully aware of the most beneficial mode of carrying it into effect. That was discovered by persons more acquainted than he himself was with the science of heating air. Still, however, I think, if you are of opinion that the specification does disclose such an apparatus as to enable an ordinary workman, acquainted with the subject of making blowing apparatus, and fitting up apparatus for forges, to construct an apparatus of some value, so as to make it worth while, it seems to me, that so far as this object

The patent is not void by reason of the apparatus described admitting of the greatest improvements.

tion goes, the specification would not be insufficient. He says— A.D. 1841.

"The next was a serpentine pipe, twelve feet long, nine and a half feet in a straight line." I need not go through the various variations that took place afterwards in the progress of the improvements. Ultimately they got to small tubes, then there was some gridiron pipe used in 1832, and the tubular form was adopted; and there can be no question that that was the most beneficial form as far as experience goes to this time. He says—"We found the old dry twires answer to a certain extent. Sometimes they lasted a week or more, or a few days; sometimes a few hours." He says—"They were removed oftener than with the cold blast. It frequently happened that they lasted only a few hours. They were changed oftener than once a week, sometimes two or three times a week. They were not changed in the furnace; not once a day. I should say there might be one a day in both furnaces. Sometimes the blast stopped for a quarter of an hour, sometimes half an hour, or an hour. It generally takes two or three people to do it. In some cases two twires have been put in in one day. I cannot say it has not happened that four or five twires have not been put in in one day. Before I went there, I had no experience in smelting iron. I was the underground surveyor, and made the plans for the works, and had free access to the works, and the books. I made myself well acquainted with what was going on, so as to be enabled to say that it was worked to a profit. In 1831," he says, "a range of horizontal pipes were introduced; there was a continual flow of air from the pipes; that raised the temperature to as great a degree of heat as ever has been acquired since." He says—"We used a variety of forms of vessels in different furnaces at the same time."

Mr. Farey says—"I have investigated the subject of iron smelting. I have known the mode in which iron is smelted for thirty or forty years. Cold blast was used for smelting iron before the hot blast was employed. It is a new invention of Mr. Neilson's, and contrary to the opinion which was universally entertained, that the colder the air the better. The heat was considered as inimical. I consider this as an invention of very great magnitude indeed, applicable to all smelting operations where the blast is used. It will soon," he says, "in all probability, be used as a substitution for reverberating furnaces." He says—"A person acquainted with a blowing apparatus as it existed before the discovery, and as it exists still, would have no difficulty in constructing an apparatus for the improved application of air to a beneficial extent—I mean, accustomed to the construction of blowing machinery. Those are of a high class, and have all the requisite knowledge for adopting this improvement." Now, what he goes on to state afterwards seems to render it doubtful, whether an ordinary

Parker, B., to the jury. person would be able to do it; but if the simplest form would be a benefit, one should not feel much difficulty in saying that he would be able to work out a beneficial apparatus from the specification. "I am acquainted," he says, "with the mode of constructing vessels for heating air. The object is to get the largest surface exposed to the fire. There are two qualifications; the first is, that there should be a sufficient passage in the vessel, so as to allow the current of air to pass without obstruction; and the other is, that the air in its passage should be compelled to pass in contact with the heated surface; and with these two conditions the form and shape are immaterial. That part will be material for you to attend to (n). "The size depends upon the quantity of blast required, and the temperature to which it is heated. These principles were well known at the date of the patent. I knew of water twires in 1809. Then he describes the three descriptions of water twires which have been used, and are now used. And on cross-examination in order to ascertain what he meant by a high class of engineers, he said—"He considered Watt and all manufacturers of steam engines and blowing engines of the first class." He says—"They have very scientific men in their employ. I think an engineer of the second class would construct an apparatus which would be beneficial; but not to the extent to which it has now reached, or would reach, in the hands of the class exclusively employed in making blowing apparatus." He says—"The third class are iron masters, making their own apparatus; they would do it," he says, "beneficially; not so good as the second, and not near so good as the first. An ordinary workman would not be employed by an engineer of the first or third class. A man must bring the ordinary information which is current among those who are employed to design and construct blowing apparatus. One of the points is to provide an adequate passage for the air. The rules and proportions for such passages are well known and habitually practised; he must also possess and exercise that knowledge in the application of fire to heat boilers, which is equally well known and habitually practised in the making of steam engines. He must also pay attention to the circumstance that the contact of the air must be kept pretty constant to the surface of the vessel, and upon that subject the specification contains very useful information, stating the capacity for a common cupola." Then there is a question as to the rules and proportions. "The passage of the

(n) Sir W. Follett, on the part of the plaintiffs, called the learned judge's attention to the notice of objections, and contended that the supposed misstatement contained in the words "the form or shape of the vessel is immaterial to the effect," was not pointed out in the notice of objections.

But the learned judge being of opinion, though not specifically pointed out, it was included in the general words of the notice, "that the specification is calculated to deceive," leave was given to move upon that point.

pipe to contain the air should not be less than one-sixteenth of A.D. 1841. the blowing piston, or one-fourth of the diameter; he may make it larger if he pleases—that is the ordinary rule for blowing apparatus, so that the air would pass sixteen times as fast as the piston travels. If the passages are made larger, it goes slower, with less obstruction. There is no objection to make it larger; but it ought not to be smaller: that is all I have to say as to the passage of air.” Then he says—“It might be made so large that the heating of air would not take place. As to the steam vessel, the great object is to distribute the heat all over the surface, so that it would not be too vehement in a particular part and destroy the boiler. The object ought to be, that the heat should be retained in contact with the boiler so long, that there is no extravagant waste of heat passing up the chimney.” That is speaking of the steam apparatus. These are the two points to be accomplished. He says—“An engineer of the third class would not be so competent by reason of want of science, and the inferior work which they copy. An engineer of the third class would have no difficulty, if the thing was described to him; he would be in a situation of having a copy to go by, and without that he thinks that he still could make an apparatus which would be useful.” He says—“Assuming the size to be given, the form and shape are immaterial, provided you attend to the two conditions.” It was a long while before we could get him to state the exact fact as to that. This question was put to him—“Supposing ten thousand cubic inches are required, is it immaterial whether it is a tube, a globe, a cylinder, a pipe, or an elongated cylinder?” He says—“No; it is very material—the variance of the shape is very material, unless my conditions are attended to, the conditions under which the air is to be supplied.” This specification says that the shape is immaterial to the effect, whereas all the effect depends upon the shape of the vessel; and unless that can be controlled by the admission of the evidence of a person acquainted with the subject, and that evidence is to you satisfactory, I am afraid, according to my present opinion (it may be possibly wrong), that the patent has failed.

Mr. Holdsworth, an iron master, says—“A person acquainted with the mode of constructing a blowing apparatus would have no difficulty in constructing a proper apparatus from the specification. We have only three furnaces in operation. We have at several times varied the form. The new plan is to make the pipes longer, with an oven over them, so as to make the temperature more uniform.” He says—“I read the specification to see whether it was a good patent. I am a cotton spinner, machine maker, and an iron founder. The box or cylinder would no doubt heat the air to a certain temperature—what temperature I cannot say. I differ with Mr. Farey as to some

Parks, B., to the jury. parts of his evidence. I consider that any form of vessel would

If experiment be necessary, the specification is bad.

heat the air. I think it might be heated in a cubical box without partitions in it quite easily. Any one would try the simplest and easiest plan to see how it would answer." That would be experiment; and if experiment were necessary in order to make it answer in all the three cases, then it would not be a good specification. If experiments were necessary, and a man could not do it with the means and knowledge which he possessed, and it were necessary to make experiments in order that the plan should answer in all the three cases, if that were the case, the patent would be void upon the substantial ground. "I agree that to a great heat the shape is material, but to heat the air it is immaterial. The form and shape are immaterial in this, that any vessel will produce a result; the form and shape are material as to the extent of the beneficial result. The last shape is the horse-shoe form, which gives 600 degrees. The last improvement is increasing the heated surface in proportion to the air to be heated."

Then Mr. Kirkman, an engineer, says—"I had the specification put into my hands. I was requested to make experiments, so as to speak to it. I prepared no apparatus. Finding two gas retorts about the works, I put them up. They were thirteen inches and a-half in diameter, and in length four feet nine inches, and the contents were 18,000 cubic inches. I found upon an experiment that it was beneficial to this extent, that with cold air we required 298 lbs. of coke to melt a ton of iron, and that with this apparatus and the hot blast I found it was reduced to 113 lbs., which is a saving of one-half in the fuel." He says—"I required no other directions than those in the specification, added to my own practical knowledge. I employed one cylinder, which we worked up to 315 and 480 degrees. There was a very considerable saving. Any person accustomed to manufacture apparatus of this kind would find no difficulty."

Then, Professor Daniel says—"I am acquainted with the specification. I never knew of the hot blast before. A person accustomed to the manufacture of blowing apparatus, would be able to make a beneficial apparatus according to the specification, and most clearly a person accustomed to the process of heating air, and better acquainted with the principle and nature of the invention, would construct a beneficial apparatus. The principle is entirely new; I never saw the process in actual operation. The shape depends upon circumstances—the situation, the heat required, and the power of the blowing apparatus."

Mr. Cooper says—"Looking at the specification, there would be no difficulty in heating the air to a certain extent, so as to use it beneficially, but there would be some difficulty as to obtaining the best mode. I do not believe that has yet been done." And he thinks it probable that improvements will take

place to heat the air to a still higher degree of temperature. A.D. 1841.

Upon cross-examination, he says—"To some extent one form of vessel would be better than another, but every body could get some beneficial result so as to make it worth while to employ it."

That, gentlemen, is the evidence, and will you have the goodness to answer me the questions in the form in which I put them?

The jury found as follows:—

Special verdict.

We all agree that shape and form are material to the effect, namely, that is, to the extent of beneficial effect produced, not to producing some effect, for some beneficial result would be produced from any shape, and as to producing the extent of beneficial effect, the form and shape are material. Secondly—We think a man of common understanding, of ordinary skill and knowledge of the subject, that is, of the construction of the said blowing apparatus, would be enabled to construct, according to the specification alone, looking at it altogether, such an apparatus as would be an improvement, that is, would be productive of some beneficial result, sufficient to make it worth while, expense being taken into consideration, to adapt it to the ordinary machinery in all cases of forges, cupolas, and furnaces, where the blast is used. Thirdly—We think a person of competent understanding, and ordinary skill and knowledge of the subject of the construction of the air-heating process, would be enabled to construct, according to the specification alone, in the same way looking at it altogether, such an apparatus as would be an improvement, that is, would be productive of some beneficial result, sufficient to make it worth while, expense being taken into consideration, to adapt it to the ordinary machinery in all cases of forges, cupolas, and furnaces, where the blast is used. Fourthly—We think a person of common understanding, and ordinary skill and knowledge of the air-heating process, would not be misled by the description of the immateriality of the form and size of the vessel in producing the effect. Fifthly—No person, we think, nor a person of common understanding, and ordinary skill and knowledge of the blowing process, *a fortiori*, would be misled.

PARKE, B., then directed the verdict to be entered on the issues as follows:—On the first, second, and third, for the plaintiffs; on the fourth, for the defendants, upon the construction of the specification, with liberty to move, thinking that, according to the grammatical construction of it, there was an averment that the form and shape were immaterial to the extent of the effect—that it was a misdirection; that there being a misdirection in the instrument itself, it could not be corrected by parol evidence, with liberty to move to enter that verdict for the plaintiffs on that issue; and for the defendants to

take the objection in answer contingently, that the patent is void for the bad title if it be open upon the issue, in answer to that application, and to move in arrest of judgment if the verdict is entered for the plaintiffs.

NEILSON AND OTHERS v. HARFORD AND OTHERS.

E. T., 1841.

Cor. Lord Abinger, C.B., Parke, B., Alderson, B., and Rolfe, B.

Sir W. Follett: In this case I have to move to enter a verdict for the plaintiffs in pursuance of leave reserved, or, in case it should be supposed that there was any matter not submitted to the jury in the alternative, for a new trial. There were five pleas, four of which were found for the plaintiffs, and the other, as I submit, was also found for the plaintiffs, but the learned judge directed that the verdict should be entered for the defendants on that issue, with liberty to the plaintiffs to move to enter a verdict for them. I submit that this is emphatically and exclusively a question for the jury; that it was not a question of law but of fact, and the jury have distinctly found that the plaintiffs did describe the invention, and did point out the mode of its use.

The patent was substantially for a mode of heating the air between the blowing apparatus and the furnace in a closed vessel. It was contended, therefore, that every mode of heating the air in a closed vessel, between the blowing power and the blast furnace, was an infringement of the patent, and of that opinion was the learned judge, and no question arises upon that now. The defendants in this case use a vessel consisting of various pipes, and it has been since the patent was taken out discovered, by various experiments and improvements, that the higher the air is heated the more beneficial its effects on the furnace. That does not seem to have been in the contemplation of the inventor; in the pipes used by the defendants, there was greater surface exposed to the fire; it was more economical of fuel, and that vessel consequently produced a higher temperature than vessels of a different kind. The learned judge was clearly of opinion that it was an infringement—[*Parke, B.*: That it was an improvement, but an infringement.]—so long as the patent remained in force.

The question now turns mainly on the fact, whether or not the jury did not find the fourth issue in favour of the plaintiffs—and two points were made. The objections to be delivered under the statute (5 and 6 W. 4, c. 83) must distinctly point

the attention of the plaintiffs to the precise nature of the E. T., 1841. objection to be raised. The objection raised was not open to the defendants. The construction put on the plea was not a right construction, but the question is not open because it was for the jury. The finding of the jury that, upon the specification alone, a person of ordinary skill would construct the apparatus required, disposed of every other question. [*Parke, B.*: My doubt was, whether the evidence of a person of ordinary skill would do, or could be allowed to contradict the grammatical construction of one part of the specification.] The learned judge considered it unnecessary to leave to the jury, whether the particular passage, that the form or shape of the vessel or receptacle was immaterial to the effect, was inaccurate, but he left it to the jury whether it was calculated to mislead, and they found that it was not. The learned judge took that sentence alone from the rest of the specification, and stated his opinion to the jury, that in point of law that was a misstatement, and that it would affect the patent. [*Parke, B.*: Provided it was untrue in fact.] We have had no opportunity of presenting what has been the impression produced on other minds as to the meaning of the passage. This is not a patent taken out for heating air; that was perfectly well known; and every body knew, that for the purpose of increasing the temperature, the larger the surface that was extended to the fire, the greater the effect which would be produced on the air within it. The passage does not profess to say that the form and shape of the vessel for heating air is not material as regards the air in those vessels, but that was the construction adopted by the learned judge; and it was in that view that he put it to the jury. I submit that is not the meaning of the passage at all, but that the meaning of the passage is this—I do not make any claim for vessels for heating air. Every body knows how to heat air, and every body knows the principle of it. There are various vessels for heating air, of different forms and different shapes, now in use; I say that, as regards the effect on my furnace, the form or shape is immaterial, and may be adapted to local circumstances; and so it is entirely immaterial. It is not immaterial to the heat of the air; and if, upon subsequent discovery, you have found out that by raising the temperature to a higher degree you may improve upon the patent, that is another question; but this patent was never taken out for heating the air, nor has it any reference to the form or shape of the vessel for heating. It is, that when you have heated the air, and heated it for the purpose of raising a stream proper to convey it into the furnace, then the form and shape of the vessel is immaterial as far as regards the working of the blast furnace.

The question as to this passage is for the jury, not for the court; the specification is not one of those written instruments

*Motion for rule
to enter a ver-
dict for the
plaintiffs.*

which it is the province of the court to decide on. It is stated that the specification did not sufficiently describe the manner of carrying the invention into practice. The jury have found that the passage could not mislead, that the specification alone is sufficient, and that any person, upon the specification alone, might carry the patent into effect. The verdict should be entered for the plaintiffs, unless the court are to lay down that it is not a question for the jury at all, but for the court, and that the court have a right to say, upon our construction of it, that this is calculated to mislead. But this is matter of evidence; it is not for the court to construe a written instrument independent of parol evidence. I am not speaking of defects in the title, or of the patent claiming more than it ought to do; but of the intelligibility, to use Lord Eldon's words, when he says that every question of that sort is for the jury—the intelligibility of the specification, and the way in which the work is to be constructed, and whether ordinary persons would or not understand it (o).

Rule granted.

*Motion for rule
for a new trial.*

Sir J. Campbell, A.G.: I move for a rule to show cause why there ought not to be a new trial on account of the finding of the jury, as being not only without evidence, but entirely contrary to the evidence adduced. The plaintiffs' patent is for three things; for the smith's forge, the melting cupola, and the larger furnace for smelting iron. No evidence is given as to how the invention is to be applied to either of the two first, and the matter is discussed as if the plaintiff had made a great discovery of how iron was to be smelted in a superior manner by means of hot blast. The only mode in which the patent can be worked to advantage, is when the air is heated in a long succession of tubes; but Mr. Neilson was so ignorant of the manner in which his invention was to be used, that at first he tried a vessel of a cylindrical form, seven feet long, with partitions, for the purpose of obstructing the rapid passage of the air. The passage in the specification, as to increasing the dimensions of the air vessel, is an entire misrepresentation. No bad faith or concealment is imputed to the plaintiff, he states that which is untrue from ignorance. Another objection is open to us in showing cause, or in arrest of judgment—that the specification does not at all follow up the title of the patent.

Rule granted (p).

(o) See *Hill v. Thompson*, ante 237.

(p) When this rule came on for argument, the court, after the notes of the learned judge had been read, called on Sir F. Pollock to support the defendants' rule, intimating a strong opinion that the evidence was all one way, and that the defendants' rule for a new trial, on the

ground of the verdict being against evidence, could not be at all supported, and that as to any ground in respect to the specification, it had already been disposed of by the discussion on the plaintiffs' rule.

Sir F. Pollock, A.G., pressed on the court the position in which the defendants were placed;

NIELSON & OTHERS V. HARFORD & OTHERS.

June 9, 1841.

rd Abinger, C.B., Parke, B., Alderson, B., and Rolfe, B.

Campbell, A.G. (Sir F. Pollock, *Monteith*, and Hugh h him.) My learned friend Sir W. Follett has obtained show cause why the verdict entered for the defendants e fourth issue should not be entered for the plaintiffs, he question upon the answers returned by the jury to questions submitted to them upon that fourth issue. of law, the verdict ought to be for the plaintiffs or for ndants; those five findings all respect the fourth issue—h being, "that there was not a sufficient specification." ification is directed to three things—to common fur-melting cupolas, and blast furnaces—and may be suf-ith regard to common fires or furnaces, and to cupolas; is not sufficient with regard to blast furnaces, the patent

irst objected that we have not complied with the fifth of 5 & 6 W. 4, c. 83 (g), and that we are not entitled to e objection on which we rely. That act was framed iew to the former mode of pleading in such an action, g to which the defendant was at liberty to give every evidence. He might say that it was not new, that it useful, that there had been no infraction, that the spe- was defective. That was a great hardship on patentees, did not know exactly what objections to be prepared to o remedy this, the fifth section of the act was passed. admit that it has been held by the Court of Common

the construction of the specification been reserved at *nisi prius* in such a to enable the defendants to bring a or on the decision of the Court of ; and the defendants, in order that be in a position to do this, were ready e costs, to undertake to call no wit-to leave the question of fact, and the he jury, to be taken as they were, if ould mould its rules and practice so the defendants to take the matter to rror. But—

ger, C.B.: In order to do that, we ld our general rules. You are now tion—you made an application for a aving made the application upon the ed by the judge, viz. the legality or ey of this specification, to which was that the verdict of the jury was evidence; and the court then, without evidence, granted a rule upon both You selected the ground of the spe- and discussed that separately. If the

court had been with you upon that, there would have been no necessity to discuss the other. The court were against you upon that. Now you come and discuss the other; and the court feeling, and you probably feeling, that upon that taken separately you could not have a new trial, you now ask of the court to introduce altogether a new precedent, in order to give you the benefit of a new trial, as if they had determined in your favour.

Alderson, B.: If you make out to the Court of Chancery that you wish to take it to a court of error, then the Lord Chancellor will say, take it to a court of error. Suppose the Lord Chancellor should agree with the construction which this court has put upon the specification, then he would not do so.

The learned counsel cited some cases in which this course had been adopted, but they are distinguished by the court from the present.

See further *post* in the Lord Chancellor's judgment on the motion to revive the injunction.

(g) *Ante* 260, n. a.

Sir J. Campbell
against rule to
enter verdict for
the plaintiffs.

The notice of
objections must
give more in-
formation than
the plea.

Pleas (a), that upon an application before trial, the court or judge has power to order a particular of the objections, which shall be more specific than the plea—it shall not be a mere echo of the plea; but the question is not now what might have been done, if there had been any application as to the reforming or amending the particular of objections, but you are now considering the effect of the objections of which notice was given, no objection having been made to them, and whether the whole is not clearly open to us. The result of the decision in *Bulnois v. Mackenzie*, where the objections were a mere echo of the pleas, is that the court, under their general jurisdiction, have a right, if they think fit, to order the notice to be more specific before trial, in analogy to what is done with regard to particulars of the causes of action, which the plaintiff means to give in evidence at the trial; or where there is a notice of set-off, or a plea of set-off, a particular of the grounds on which that plea or notice of set-off may be substantiated at the trial.

The result of the decision in *Fisher v. Dewick* is, that the court had jurisdiction to order a particular that should disclose more than was to be gathered merely from the pleas. But no case has occurred when, after trial, or at the trial, the objection arose that the notice was insufficient, and I apprehend that if the defendant gives us notice of objections in which he simply stated that he objected to the specification, that would enable him to make any objection to the specification at the trial, the plaintiff being contented with that, and not applying to the judge or the court for a better particular of the objection. [Lord Abinger, C.B.: You say the notice was large enough to embrace the objection made at the trial, and that if it did not comprehend that, if any thing more specific was required, they should have applied for it before the trial.] [Alderson, B.: The question at the trial is only, whether the words of the notice are sufficiently large to include the objection.] Yes; if they had wished to know in what respects we said the specification was void: then I do not dispute your lordships' authority to have ordered us to state in what respect, and then we might have gone to the dimensions, to the shape of the vessel, and so on. [Rolfe, B.: The statute is very strangely worded. If you prove the objections in the notice, the language of the statute would go to show that you may prove any others beside.] [Alderson, B.: Suppose it was simply, the specification is insufficient. If the plaintiff is contented to take that as notice, surely any objection may be made at the trial to show that the specification is insufficient.] The title is, "improved application of air to produce heat in fires, forges, and furnaces, where

(a) In *Bulnois v. Mackenzie*, ante 260; and *Fisher v. Dewick*, ante 264.

bellows or other blowing apparatus are required." Well, then, *In the Exchequer* it is merely an improved application of air to produce heat. It *E.T., 1841.* is not the heated air. [Lord Abinger, C.B.: It might just as well be air rendered colder.] Yes; because if the vulgar notion had turned out to be true, "that the colder the air the better," then this might have been a refrigerating apparatus, if it may be for a heating apparatus; and I submit that one objection which is open to me, and which was reserved at the trial, is, that under a title "improved application of air," &c., he cannot specify an invention which is entirely confined to the temperature of the air when it is to be applied. Such of your lordships as have served the office of law officer to the crown, must be fully aware of the constant attempts that are made by those who apply for patents, to produce a title that may entirely mislead—that may give not the remotest notion of what they intend, and which may enable them for six months, or whatever period it may be, to gather together whatever they can collect, and to specify it at the end of that period. Great frauds have been committed on that subject; and it would be a most salutary decision, and most wholesome and beneficial, if your lordships were to lay down a rule, that the title of a patent should at least convey some idea of the invention for which the patent is supposed to be granted. Until there is a judicial decision on that subject, I am afraid that all the efforts that may be made to resist these attempts will be entirely ineffectual. [Lord Abinger, C.B.: I am afraid it is too late to agitate that. If the specification is consistent with the title, that would be sufficient. I have known persons who had great difficulty in finding a name for their patent invention. I knew a very useful invention set aside because an ingenious person at the bar had suggested to a gentleman to take as a title to his patent, "a tapering brush;" it did not taper, it expanded] (b). I never would suggest that it should be necessary at all to disclose the mode in which the invention is to be carried into effect. For if you required that the title of the patent, which immediately becomes public, should at all disclose the invention, fraudulent persons who have patents in progress would specify those inventions; but still that there should be some general notion given of that for which a patent is sought, would be most salutary and highly desirable. [Parke, B.: It would be for the crown to adopt that by requiring the specification to be enrolled within a less time than six months.] I may mention, that to guard against that the practice now generally adopted is, to require that there shall be *de bene esse* a specification lodged with the

The title need not give any idea of the invention; it is sufficient if the specification be consistent with it.

(b) The case alluded to is *R. v. Metcalfe*, where Lord Ellenborough held that the grammatical construction could not be corrected, unless

the term had by the usage of the trade acquired a perverted sense. *Ante* 141.

Sir J. Campbell
against rule to
enter verdict for
the plaintiffs.

Attorney and Solicitor General, which certainly guards against frauds that might otherwise be practised to a certain degree. [Alderson, B.: You interpret the word "air," as air in its natural state, and the application is merely the mode in which it is brought to the furnace. This title would apply to a tube coming perpendicularly down on the furnace, or a tube coming perpendicularly up.] Any change in the blowing apparatus. It certainly tends to mislead; because, suppose that a person had a patent for a blowing apparatus, he would suppose that this might be an infringement upon that patent, and I dare say there were attendances before the law officer of the crown by persons who had a blowing apparatus, for which a patent was granted, or who had it in contemplation to solicit a patent for a blowing apparatus. But this excludes the notion of its being at all a mode of cooking the air, of dealing with the air before it is applied; it is not a dealing with the air, but it is the application of the air. [Lord Abinger, C.B.: It certainly does not suggest heated air any more than cold air.] It has no reference to the temperature of the air. It is supposed to be atmospheric air of the ordinary temperature. [Lord Abinger, C.B.: You see, if he had put "an improved mode of applying air," that might have involved a process he did not mean. It is an "improved application of air."] I submit that under this title for which the patent is granted, there is no specification of the invention for which the patent is granted, for the patent is granted for an "improved application of air to produce heat," and what is specified is not an improved application of air, but an alteration in the quality of the air, not in the application of it. [Rolfe, B.: The application of improved air instead of an improved application.] It is not an improvement of the application, but it is an improvement of the air. The title is for an improved mode of applying, but the specification is not an improved mode of applying, but it is for an improvement of that which is to be applied; and although you may say that hot air is air, and that cold air is air, still this not only does not contemplate any alteration in the air to be applied, but I say that it excludes it. It is a mode of applying; it is not a mode of dealing with the air; it is not what the air shall be—whether the air shall be hot or cold, whether it shall be a mixture of some other gas, or what it shall be; but it is merely for the application of it, which properly looks to some improvement on the blowing apparatus, and does not at all contemplate any improvement by which the temperature of the air shall be altered, either by heating or cooling. [Lord Abinger, C.B.: It is to a certain extent an improvement in the application, and it proposes to apply the air by making it pass through some medium by which it will acquire heat before it enters the furnace. A particular form, or shape, or medium, is

part of the patent, but it is that air shall pass through a heating process before it enters the furnace. Would it not be per criticism to say, that it was not an improved mode of heating air? The mere discovery of hot air or cold air would be nothing. Suppose it was a patent in these words—"A patent for an invention by which air shall be heated before it enters the furnace. I do not claim a patent either for the material or for the shape, but the air must pass through a process of heating before it enters the furnace." If the patent had been in those words, it certainly would not have been liable to this objection, because that would have been a mode of heating the air before it enters the furnace, and then he might have specified the mode in which the air is to be heated—but this is not for a mode of heating the air before it enters the furnace, but a mode of applying the air. [Lord Abinger, C.B.: No, it is that the air shall be heated. "The particular mode in which it is to be heated I leave to you," he says. "My discovery is, that it shall be heated by passing through a heating process before it comes to the furnace."]

Next, as to the directions which are given. He first merely describes the common blowing apparatus, &c. Now, I may observe, that there can be no doubt that some directions must be given as to the size and shape. It would not do merely to say an idea that the air shall be hot instead of cold. I think some of the witnesses said that he would dismiss the specification; another, that he would make experiments; some, that they would begin with a cubical form; others, that they would begin with a tubular form. But I apprehend that this specification would be bad, unless it gave some directions with regard to the size and the shape of the vessel in which this process of heating is to be conducted. You cannot have a specification of a mere notion; you cannot have a patent for a notion or a principle; you must show, according to the terms of the conditions, you must describe and ascertain the nature of the invention, and in what manner the same is to be performed. Is not this a most material part of the specification? The whole novelty consists in this heating vessel, and he is to tell you how the process of heating is to be conducted. Then, after stating with regard to size what is clearly incorrect, he tells you, in the most absolute and unqualified manner, that the form or shape of the vessel which is to be so employed is immaterial to the effect. It is said there are different meanings which may be ascribed to the word effect; that it is the result of the operation, the beneficial effect of making the iron. You are told in the most pressing manner, that you may adapt the form of the vessel according to circumstances, and that the shape is wholly immaterial, be it sphere, cube, or cylinder, whether a series of spaces, a perfect cube, or cylinder, long or short. But the fact turns

Sir J. Campbell
against rule to
enter verdict for
the plaintiffs.

out just the contrary, and the jury have found it so. One witness said, there would be some good effect produced even from a cube, but it was quite clear that until the tubular form was adopted it did no good at all. [Alderson, B.: The word "effect" may mean one of two things. It may either mean the effect which hot air will produce on the blast furnace, or it may mean the effect which fire applied to the vessel would have in heating the air; which of those does it mean?] So that your air is heated, it is very immaterial how it is heated, whether it be heated in a sphere or in a cylinder. It will not do for a person to say you are to introduce hot air into the blast furnace, he must show the *modus operandi*. [Alderson, B.: It will come very close upon *Boulton and Watt v. Bull*, the only *modus operandi* of which was the condensing in a separate vessel; so here it is the application of heated air, the air being heated in an intermediate separate vessel. That is a *modus operandi* sufficient to save the patent.] But he tells you what that intermediate vessel is to be, and he professes to do that. [Alderson, B.: He says, no matter how you do it, provided in an intermediate vessel you bring it to a certain temperature. Then the effect will be the same on the blast furnace. My invention is hot instead of cold air.] He professes to tell you what is to be the size of the heating vessel, and he tells you that the form is immaterial. Every thing depends on the degree of heat. Then what is the effect? It is to heat. These various shapes of vessels are all material with regard to the degree of heat, the effect depending entirely on the degree of heat, and therefore the effect is the degree of heat. It was admitted at the trial that this must be erroneous and false, unless you can engraft upon the assertion two conditions—that you have a sufficient degree of heat, and that there shall be a sufficient current of air to propel the air from the regulator to the blast furnace. [Lord Abinger, C.B.: I suppose, in making the specification, he considered that it was proper to propose some mechanical illustration of his principle. But suppose he had said this—my invention consists in the application of heated air to the furnace by means of any of the methods by which air is now heated, or any other method, and allowing air so heated to pass through a tube or aperture to the furnace. Probably he apprehended, that if he stated specifically any form of heating air, he might then have infringed on some other patent; therefore, suppose he had said simply, my invention consists in the application of heated air by making the air pass through a heating process before it arrives at the furnace, but I do not intend to describe the form of the receptacle, I leave that to the local circumstances, and judgment of the parties to deal with such matter, stating only that the hotter you get the air the better.] If at the time he knew what was

the proper form of vessel, and he had specified as your lordship suggests, the patent clearly would have been void. *In the Exchequer E.T., 1841.*

[Lord Abinger, C.B.: Yes, if he had known it at the time.]

Because he was bound to disclose to the public the most beneficial mode he was aware of for carrying it into operation. I should doubt whether such a specification would be sufficient, at all events it would not be untrue; it might be defective, it would not be false. [Parke, B.: I left the question to the jury, whether he had improperly concealed the discovery he made that the vessel would be better with divisions in it, because he had clearly tried that before the specification. The jury were of opinion that he had not been guilty of a fraud in that respect.] There was no fraud imputed to him, it was pure ignorance. [Alderson, B.: The blowing apparatus was perfectly well known; the heating of air was perfectly well known; the twire was perfectly well known as applicable to blast furnaces; then what he really discovered is, that it would be better for you to apply air heated up to red heat, or nearly so, instead of cold air as you have hitherto done. That is the principle; that is the real discovery; but, in order to take out a patent, you must have an embodiment of the principle, and his embodiment of the principle is the heating of air in a separate vessel, intermediately between the blowing apparatus and the point where it enters the furnace. Then, he says—"I do not mean to claim any shape in which it is done; it may be done in a vessel of any shape, provided only you have such a vessel of such a shape, and fire so applied as that, in the intermediate space between the blowing apparatus and the furnace, the air arrives at the red heat." And to gain that object, the size is to be always increased in proportion to the effect that you wish to gain, and the form and shape of the vessel are altogether immaterial; this is what he tells you. [Alderson, B.: Immaterial to the effect in the furnace, but not immaterial as to the mode of obtaining heated air. That is the point of my difficulty.] It being the true legal construction to be put upon it, that the effect is the degree of heat to be produced, and the jury having found that the shape of the vessel is most material as to the degree of heat that is to be produced, here is a false description which at least has a tendency to mislead. The jury have found, in answer to questions that were submitted to them, that a person skilled in the blowing apparatus, and a person skilled in the heating apparatus, would not be misled by this false statement to be found in the specification. Is it to be a cure for a false statement, in a material part of the specification, that it is so very false that persons of skill could see that it was false, and instead of going by the specification, that they would throw the specification aside, and enter on a course

The patentee is bound to disclose in his specification the most beneficial mode with which he is acquainted.

A principle, to be the subject of a patent, must be embodied.

Sir J. Campbell
against rule to
enter verdict for
the plaintiffs.

directly different from that which is recommended? A specification must be a full communication of what is to be done, and how it is to be done, and it has been repeatedly laid down, that a specification which requires experiments is bad. Most of the witnesses in this case said they would make experiments as to what was the best shape. If a specification is bad without pointing out the *modus operandi*, if it points out a *modus operandi* which, if followed, would defeat the object, must it not, *a fortiori*, be bad? and it is not enough to say, that a skilful and scientific person would find out that there was a gross blunder. A person who is to follow a specification is not to draw on his own resources, he is to follow implicitly the directions he receives, and if those directions would mislead him the specification is bad, although a person of skill and science, canvassing it and reasoning upon it, would discover that there was a blunder, and the jury have gone so far as to say that a workman of ordinary skill would discover that it was wrong. [Parke, B.: Is there any case (the impression I had at the trial was, that there was no case) which went so far as to say that you might correct a blunder in the specification by the testimony of ordinary workmen only; that they were to read expressions that were obscure to ordinary men? Is there any case, supposing this to be a blunder, in which it has been allowed to correct that blunder by means of the testimony of men of ordinary knowledge on the subject?] We can find no such case. What then does the case turn out to be? That Mr. Neilson had a notion that hot air might be used beneficially. He supposes that the form and shape of the vessel are immaterial. It is said that some benefit will arise whatever the form or shape of the vessel may be; he either does not tell you what is the proper form of the vessel, or he misleads you entirely by saying the form and shape of the vessel are immaterial. If they are material, he has stated in an important part of the specification what is false, what will mislead a workman in carrying his specification into effect; and after that, how can it be said that he has truly ascertained and described the manner in which his invention is to be performed? On these grounds, I submit that the defendants are entitled to retain the verdict on the fourth issue.

Sir F. Pollock, against the rule: After what has fallen from the court, it is unnecessary for me to dwell on the notice of objections, or on the objection to the title, and I propose to point out what is the meaning of the specification, and the objection which arises upon it, if it be one, and then whether that be cured by any finding of the jury. An expression which fell from Mr. Baron Alderson appears to be the key of the intention of the patentee, that he confounded the heat of the

air vessel with the heat of the contained air. The directions given throughout the specification do not apply to the air, but to the vessel which is to contain the air. *In the Exchequer*
E. T. 1841.

I entirely agree with what fell from one of your lordships, that if it had been distinctly stated in terms like these—a blowing apparatus is old, methods of heating air are as various as any other processes in the arts, and my invention consists in raising the temperature of the air to 600 degrees Fahrenheit, or thereabouts, by any process known to the scientific or to the mechanical world, and then applying the air so heated—that might have been an exceedingly good patent for aught I know. But that is not the patent which Mr. Neilson has taken out. He had never made any experiment as to what was the proper temperature; he had some vague notion that the heating of air was beneficial, without ever having reduced that notion sufficiently into practice, or made it the subject of experiment, so as to give it to the world. He appears to have made some experiments upon a small scale with smith's forges—where you would use a vessel so small that it would not present the difficulty of heating the air, on account of the surface to which the air was exposed being very considerable in comparison with the volume—and to have succeeded; and then, by a process of induction, to have come to the conclusion that the multiplication of that process on a larger scale would be attended with beneficial results, without ever attending to the important element in enlarging these vessels advantageously, that you must take care, as vessels in point of capacity increase as the cube, and in point of surface increase only as the square, you must take care to alter your shape when you come to increase the size, you must alter your shape if you enlarge your dimensions, so that the surface, which increases as the square, shall be in the same proportion to the volume, which increases as the cube, in order to produce the same effect on a large scale that you would on a small one. You will see, both from the evidence at the trial, and from the specification, that this is the true solution of the difficulty into which Mr. Neilson ultimately got when he came to specify the invention. It is never mentioned that the air is to be heated, except as a sort of general conclusion. Air is never the nominative case at all. The heating the air vessel is the only one. [*Alderson, B.*: It is so throughout.] I contend that the vice of the specification is, that it directs nothing but the heating of the vessel, and assumes the heating of the air as a consequence, and yet tells you that the shape and form of the vessel which is to be heated for the purpose of producing the result, are quite immaterial to the effect to be produced. I have no doubt that Mr. Neilson thought so; that the experiments he had performed, the progress he had made in this discovery, were such only as to induce him to form that opinion; he had not the

Sir F. Pollock
against the rule.

least idea of the important principles that are involved in the extension of this discovery to larger and other matters, and therefore he gave a statement which was, so far as he was then concerned, perfectly candid; that was, as far as he knew, perfectly true; but when it comes to be applied to the larger and to the greater and more important objects, of which he had some notion, there is no doubt the information he communicated, that the shape and form are immaterial, turned out to be without foundation. Every witness was obliged to admit it was not true, and ultimately the jury found it was not true, and then we come to this—is this to be corrected by the jury, saying that a workman of experience would not be misled by it because that is after all the only point my friends can rest on as getting rid of the objection. It appears to me, looking at all the cases, that the rule laid down is something of this sort. If

Every mistake
in a specifica-
tion will not
vitiate a patent.

you make a mistake, as by calling air an imponderable substance, where you have described what you mean—you have described air—and it is manifest from the rest of the specification, that what you mean is the atmospheric air which we breathe—it is of no importance whatever, whether you have made the blunder of calling it an imponderable substance; and the way in which that objection was put was this—that it might mislead the public to apply other imponderable substances; but as the only imponderable substances which the philosophers admit are light and electricity—[Alderson, B.: That is only a question whether it is imponderable because they cannot weigh them, or because they are not to be weighed at all.] [Rolfe, B.: So you say that a fixed star is at an immeasurable distance, because there is no means of computing it.] Your lordships are aware, that if the modern, and apparently the more correct theory concerning light be true, that it is the vibration of a medium, and not the transmission of the particles—then light can no more be weighed than sound. I believe most persons who are competent to entertain the opinion at all, are now of opinion that it is a vibration, and not the transmission of an actual substance. I think, also, there was a case, which is not reported, where sulphur was spoken of as a metal.

Where therefore, by referring to another part of the specification, suppose to the drawing, an obvious mistake made is corrected—there are several cases of this sort not reported where it was left to the jury—where, for instance, two parts in a drawing appeared to be connected, but in the description it was quite obvious, that by some incaution a connexion was left which ought to have been cut off—you are to take the whole together, and if you may correct the statement by the drawing, you may correct the drawing by the statement. You have no right to fix on a particular blunder, and say, this is what the man meant. No, he says, I do not mean that, here is a

mistake, you must collect my meaning from the whole. But is there any case which says this—that if a man in the manipulation, or in the statement of the machine that is made, deliberately states something, not by mistake, but deliberately states it, and it turns out to be wrong and to be material—that in the very operation itself he makes a mistake—is there any case which will justify this doctrine, that a skilful person coming in will see this, though an ingenious man, did not thoroughly understand the subject; it is a pity he did not make himself better acquainted with certain parts of it—but I, coming in, can correct that, and I will do so? Is there any pretence for saying that any case decides any thing like that doctrine for your lordships? It would place the whole law of patents altogether at the mercy of a jury. [Alderson, B.: Lord Eldon lays down the principle so long ago as 1800. He says, patents are to be considered as bargains between the inventor and the public, to be judged of on the principles of good faith, by making a fair disclosure of the invention, and to be construed as other bargains. That is the principle which must be taken to be the sound principle.] Exactly. [Lord Abinger, C.B.: I take the true distinction between a specification that a man of science may construe, and another man may not understand, is this: Where the specification uses scientific terms, which are not understood except by persons acquainted with the nature of the business, the specification is not bad because an ordinary man does not understand it, provided a scientific man does; but where the specification does not make use of technical terms, where it uses common language, and where it states that by which a common man may be misled, though a scientific man would not—when it does not profess to use scientific terms, and an ordinary man reading the specification is misled by it—it would not be good.]

In the Exchequer
E. T., 1841.

The patent, a bargain between the patentee and the public, to be construed on the principles of good faith.

The judgment in *R. v. Wheeler* (2 B. & Ald. 349) is conclusive. "A specification which casts upon the public the expense and labour of experiments and trial, is undoubtedly bad. If it be said that all these matters will be well or easily known to a person of competent skill (and to such only the patentee may be allowed to address himself), then the invention will not in reality have given any useful or valuable information to the public; so that, in either way of viewing the case, there is either no certain and clear process described, or the process described is such as might be practised without the assistance of the patentee." If a person of skill is to come in, and by means of his skill and experience without experiment is to correct the blunder, and not to follow the directions, because he says that the writer of those directions did not understand the subject upon which he was writing, and had not sufficiently matured his discovery, or performed his experiments so as to

A specification which requires experiments or correction is bad.

Sir F. Pollock
against the rule.

The patent is
not for the prin-
ciple, but for
the mode of car-
rying the prin-
ciple into prac-
tice.

give the world the information they had a right to ask, and in consequence of that has fallen into that error, then, I say, this doctrine of *R. v. Wheeler* applies. [Alderson, B.: I take the distinction between a patent for a principle, and a patent which can be supported, is, that you must have an embodiment of the principle in some practical mode described in the specification of carrying the principle into actual effect, and then you take out your patent, not for the principle, but for the mode of carrying the principle into effect. In Watt's patent, which comes the nearest to the present of any you can suggest, the real invention of Watt was, that he discovered that by condensing steam in a separate vessel a great saving of fuel would be effected by keeping the steam cylinder as hot as possible, and applying the cooling process to the separate vessel and keeping it as cool as possible, whereas before the steam was condensed in the same vessel; but then Mr. Watt carried that practically into effect, by describing a mode which would effect the object. The difficulty which presses on my mind here is, that this party has taken out a patent, in substance like Watt's, for a principle, that is, the application of hot air to furnaces, but he has not practically described any mode of carrying it into effect. If he had, perhaps he might have covered all other modes as being a variation] (c). With respect to what has fallen from your lordship, about taking out a patent for a

(c) At a subsequent part of the case, the following remarks, closely connected with the preceding, occurred:—

Alderson, B.: It is very difficult to see why Watt's patent was not for a principle.

Sir W. Follett: It was not for the principle alone.

Alderson, B.: It is very difficult to see what is a patent for a principle, and for a principle embodied in a machine, because a patent can only be for a principle embodied in a machine.

Sir W. Follett: Your lordship sees, if any strict rule is laid down on such a subject, what effect that would operate, because all great discoveries are in fact discoveries of principles; and, therefore, if the principle is at all capable of being carried into effect, it seems extremely hard that a party who has made a most valuable discovery should not be protected.

Alderson, B.: Only you cannot take out a patent for a principle.

Sir W. Follett: Unless you point out a mode of carrying the principle into effect.

Parke, B.: It must be for a manufacture.

Alderson, B.: I have always thought that the real test was this; that in order to discover whether it is a good or a bad patent, you should consider that what you cannot take out a patent for must be considered to have been invented *pro bono publico*—that is to say, the principle must be considered as having had an anterior existence before the patent. Now, supposing in Watt's case it had been known that to condense in a se-

parate vessel was a mode of saving fuel, then Watt certainly would have taken out a patent for carrying into effect that principle by a particular machine; but then his patent would have been for a machine; and if I invented a better machine for carrying out the principle, I do not infringe his patent, unless my machine is a colourable imitation.

Sir W. Follett: That would depend on the nature of the machine.

Alderson, B.: But you must embody the principle in the machine, and you stop all possible improvements, because you infringe the principle, which you have no right to do; it is the principle of the machine. It is very difficult for a jury to distinguish that, but it is the most essential thing possible. Now, here, supposing it had been known that hot air applied to a furnace was a great improvement on cold air, and that this person had taken out his patent, and this patent was a patent for the application of a well-known thing, the hot air to furnaces; then he takes out a patent for applying it, by means of an intermediate reservoir between the blast furnace and the bellows; then surely any body else may apply the same principle, provided he does not do it by a reservoir intermediately between the blast furnace and the bellows, and the question for a jury is, whether or not a long spiral pipe is a reservoir; if it be not a reservoir, or a colourable imitation of a reservoir, it is no infringement. *Printed case, 222. See per Sir F. Pollock on the same subject, ante 145.*

inciple, it is theoretically true, but practically it is not true. *In the Exchequer E. T., 1841.*
 Practically, you can have a patent for a principle, that is, if you
 embody your principle in any clear, definite, and distinct form,
 no other person shall be allowed to take that principle and
 embody it in some other form merely copied from yours.

Anderson, B.: But then you must perform the previous conditions, and embody it in some practical form.] Yes, you must develop your principle, and you must correctly develop it, and you must put it in some shape, and when you put it in that shape no person can be allowed to come and steal the spirit of your invention, and put it into some other shape different from yours, provided the jury think that that other shape is an imitation of your shape. Here the party states that the shape and form are immaterial, whereas not only the witnesses did give the fact, but without proof it is abundantly obvious, and it is quite clear, that the shape and the form are of the very essence of carrying it out to the extent of which Mr. Neilson complains, that is, an imitation or an infringement of his patent.
Anderson, B.: You see you do not interfere with any benefit which the inventor has, if the inventor knows of no particular mode of carrying his principle into effect; you do not interfere with any benefit which he ever had, if he never had a practical mode of carrying it into effect. Your practical mode of carrying into effect does not interfere with him. Then the question whether that is so? I trust that the direction of the learned judge who presided at the trial will be considered as perfectly correct, that the specification contains an important statement with reference to carrying into effect the supposed invention, which statement is not true; and that it is contrary to the first principles of law, that with reference to an instrument of this description a jury might be permitted to say, that because a person coming with skill adapted to the subject might be right or wrong, that blunder or misstatement, that, therefore, the specification is in compliance with the proviso contained in the plaintiff's patent.

Sir W. Follett (Kelly and Butt with him), in support of the plea to enter a verdict for the plaintiffs. It is necessary, my lords, that we should understand the position in which the parties were at the time this patent was taken out, what it was taken out for, and what it is that has been done under it; for I do not deny that improvements may have been made on the patent of Mr. Neilson—that parties may, by experiment, have improved on what he discovered. It may or may not be so. The form of vessel used by the defendants may be the best adapted, or it may not be, for heating the blast furnace. If it be a new improvement, or if there be any thing in that invention, or in that mode of carrying it into effect, which is an improvement on the patent of Mr. Neilson, it may be that the parties might have

Sir W. Follett
in support of
rule.

Sir W. Follett
in support of
rule to enter
verdict for the
plaintiffs.

The principle of
this invention is,
that you are to
use hot air in-
stead of cold.

been entitled to a patent for that improvement; but I deny their right to use that vessel, or to use that mode of heating the furnace, during the existence of Mr. Neilson's patent. Now I would pray of your lordships to consider the position in which the parties stood at the time the patent was taken out. It is said to be a patent for a principle. The real discovery in truth was this, that inasmuch as prior to Mr. Neilson's discovery the iron masters and smelters of iron had used the blast for the blast furnaces cold, that they had considered the cold blast the best adapted for the purpose of the furnaces for smelting iron—that was the course adopted prior to this patent—the principle of this discovery, and the principle for which the patent was taken out, accompanied with the mode of carrying it into effect, is, that instead of using cold air, it will be an improvement in the smelting of iron to use heated air in the furnace. That is the valuable discovery. I agree that that in itself is a mere principle; it is, that you are to use hot air instead of cold—very valuable discovery, and a most important one. Then it is necessary that the patentee should not only have discovered that principle, which is in itself so valuable, but that he should find out a mode by which air may be introduced in a heated state into the furnace, and if he finds out a mode by which it may be introduced in a heated state into the furnace, then I apprehend he is entitled to take out a patent for the valuable discovery he has made, accompanied with the mode of carrying it into effect. That is the position in which Mr. Neilson stood.

It has been said that Mr. Neilson was not aware of the nature and principle of his discovery. It arose from the knowledge of the fact that, if you poured the air in a cold state into the furnace, the operation of the heat would be employed to heat that cold air, and that if you put it in a hot state that degree of heat would not be taken from the combustible materials in the furnace. That was a discovery partly from knowledge and partly from experience in the heating of furnaces. Now that is to be carried into effect. The way of heating air was not a discovery of Mr. Neilson's, and I cannot help thinking that a great part of the argument on the other side, and a great part of this discussion, have arisen from confounding the heating of air with the application of heated air to the furnace. The mode of heating air was perfectly well known; it was no discovery of Mr. Neilson's, every body knew it. Air had been heated, and there had been different shaped vessels employed for heating the air; for heating the air economically, and for heating it to a higher or lesser degree of temperature; all that was perfectly well known. Mr. Neilson, therefore, does not profess to take out a patent for heating air, nor does he profess to give any instructions or give any directions as to the mode in which air can be heated, because that was a matter per-

ly well known before; and I apprehend that if he had
 le as a part of his patent any statement with respect to *In the Eschequer*
 principle of heating air, as that of giving a more extended *E. T., 1841.*
 hce for heating, or described any mode by which the
 perature might be increased, and had inserted that as
 art of the specification of his patent, the patent would
 e been altogether bad, because that was perfectly well
 wn and practised at the time. The mode of heating air
 g known, and the principle of Mr. Neilson's discovery
 g that it would be better to apply air heated to a furnace,
 t is it he claims by his patent? Does he give any mode of
 ying that principle into effect? Now I will read, without
 statements of my own, the observations of one of your
 ships on that point, because it puts the matter in a very
 : light. I do not read it in the way of a judgment, but as a
 uestion coming in as to what really was done by Mr. Neilson
 : regard to this patent. The learned judge at the trial stated
 ground thus: "If the specification is to be understood in
 sense claimed by the plaintiffs, the invention of heating air
 reen the time it leaves the blowing apparatus and is intro-
 d into the furnace in any way in any close vessel which is
 sed to the action of heat, there is no doubt that the
 ndants' machinery is an infringement of that patent." What
 learned judge there referred to was, the question upon this
 age in the specification, which has been the subject of
 ussion before your lordships, not that the patent was not
 d, because it was only for a principle, because here there is
 ode of carrying that principle into effect, and the mode of
 ying that principle into effect is this—that you shall heat the
 in a closed vessel, between the blowing apparatus and the fur-
 e, and the air is to pass from the common blowing apparatus
 o a closed vessel; and in that closed vessel it is to be heated,
 then to pass from that closed vessel into the furnace. Now,
 re may be many other modes suggested, for aught I know, in
 ich heated air may be introduced into blast furnaces. It may
 so; but the patent of Mr. Neilson is for introducing heated air
 o blast furnaces, by means of a vessel which is to heat the
 between the blowing apparatus and the furnace. Now that
 he patent which Mr. Neilson takes out. There is, therefore,
 istinct mode of carrying the principle into effect. Now, one
 your lordships observed, that the blowing apparatus was
 fectly well known before; the heating of air was perfectly
 l known before: you, therefore, have a blowing apparatus well
 wn, you have the heating of air well known, and you have
 : mode of smelting iron in a furnace well known. What is this
 ent taken out for? Why the patent is taken out for passing
 : air hot instead of cold, and by doing it in this mode.
 nely, by having one close vessel between the blowing appa-

Sir W. Follett
in support of
rule to enter
verdict for the
plaintiffs.

ratus and the furnace. What is there, therefore, to find fault with in the patent as regards the discovery of the plaintiff, I doubt a most valuable principle; though I do not deny that my friend may be perfectly right in this, that since Mr. Neilson's discovery a mode has been found out by which there may be a great economy of fuel. I do not mean fuel in the furnace because there is no evidence of that at all; the great advantage of the different shaped vessel is, that you save the fuel in the heating of the vessel, and which becomes less expensive by having a particular construction of vessel to save the fuel there. [Parke, B.: You save the fuel in the furnace also by introducing hot air.] Yes, my lord, by introducing hot air. [Allison, B.: They only save fuel in the operation of heating the air.] That is to say, by making the heating vessel of the construction which they say they now do, those vessels require less fuel to heat them in the furnace between the blowing apparatus and the smelting furnace, than they would if made of the shape which Mr. Jessop, who was the first witness, an iron master, used; he used the bottle shape. They save fuel, and therefore they are more advantageous. And, my lords, they may also do this—they may raise the air to a higher temperature by being of that shape. [Parke, B.: And that saves fuel in the furnace.] That there was no evidence of, because there was a discrepancy of opinion on the subject, whether the heating the air carried beyond a certain point is, or is not, beneficial. [Parke, B.: There is no difference of opinion upon the evidence as to that the greater the heat of the air the better. But the difficulty of that is, that it renders greater expense necessary in constructing the furnace of such materials as to resist great increase of heat.] There is a difference of opinion as to whether the carrying the air above a certain temperature may be beneficial or not; but the question on this rule is, whether upon the specification and evidence there is any thing to render the patent wholly valid. It has been said—"Is it right that after the iron masters had brought this to such perfection, Mr. Neilson shall come and say this is an infringement of my patent?" Why may I not rather say whether after Mr. Neilson has made this most invaluable discovery, that the application of heated air to a furnace is so great an improvement, and has taken out a patent for that purpose, and the mode of carrying it into effect—that pending the existence of that patent, is it right to avail themselves of Mr. Neilson's discovery, and turn that discovery to their own profit and advantage, without any compensation to him? It may be perfectly true, for aught I know, that their mode of doing it is the best mode that can be adopted; but it does not at all follow, therefore, that they have a right to infringe on the patent of Mr. Neilson, who discovered that principle, and the mode of applying it. It may be that they have made an im-

provement, and, as I said before, it may be the subject of a patent, yet the defendants are not the persons who did that. Other parties who have used this thing for years have paid Mr. Neilson regularly for a license, and your lordships will observe we are now approximating almost to the close of this patent, when these defendants have thought it right to set up this question, on the form in which they are using the vessel, as an answer to the claim of the plaintiff.

*In the Exchequer
E. T., 1841.*

But on what grounds is it this specification is defective? Your lordships will observe, that it is not taken out even for the most effectual mode of smelting iron in a furnace—it is taken out for an improvement on the old method of smelting; it is said, this is an improved mode of introducing the air into the furnace for the purpose of smelting iron; that is all that the patent is for. And I apprehend, that if that specification had described an improved method—if it had shown an improved method of introducing the air into the furnace—there would have been no objection to the validity of the patent, although it might turn out that other improvements and other discoveries may show that the discovery of the patentee himself might be carried into still more beneficial effect; it would not make his patent void, because he has taken out his patent for an improvement on the old mode, and the question is, whether his patent be, or not, an improvement on the old mode, whether it can be carried into effect beneficially, so as to be a benefit on the old mode.

In this case, all the witnesses stated distinctly that no experiment was necessary, but that any person of ordinary skill—[Parker, B.: That no experiment was necessary to produce a beneficial effect.] That is what I am stating; I am not stating that experiments might not be necessary to make improvements on the discovery; but I say the discovery is for an improvement in the mode of heating the furnace, and I say that no experiments whatever were necessary for that. Then I say, you have here upon the evidence a patent taken out for an improvement; you have a patent taken out for a principle carried into effect, which is said to be an improvement on the old course of proceeding, and every witness in the case states that, without any experiment of any sort or kind, no person of the most ordinary skill could fail in carrying it into effect. The patent says, I have discovered a valuable improvement in the smelting of iron; I tell you my improvement is, you are to introduce the air heated; I tell you how to do that, by placing the heating vessel in one part of this apparatus, pass your air through it, and into the furnace; there is no witness who does not say that that is an improvement—but that it is a great improvement; that it is worth while for any person to adopt it. Taking the words which the learned judge thought it right to put to the jury, taking every thing into con-

Sir W. Follett
in support of
rule to enter
verdict for the
plaintiffs.

sideration relating to the expense, that it is an improvement that no one would hesitate to adopt; that there is no one who could not carry it into effect, and that it is a great improvement. I ask, where is the objection to the patent? And if any one tells me that since the patent was taken out I have discovered other modes of applying this, which are more beneficial, that is no answer to the patent, because the patent does not profess to be the most beneficial mode; it professes to be an improvement, and it points out the mode in which that improvement can be effected.

The whole question upon the specification, supposing we are at liberty to enter into a discussion upon the meaning of words here (which I apprehend after the finding of the jury we are not), is on the meaning of the word "effect." It means the form or shape of the vessel is immaterial to the effect to pass hot air into the furnace; that it is entirely immaterial as to the effect produced, that is, the passing of heated air into the furnace; it does not mean it is immaterial to the degree of heat to be given to the air in the vessel, but that it is entirely immaterial to the effect of my patent, that being for passing heated air into the blast furnace, and you may heat the air in a vessel of any shape you like. You may adapt your vessel to the local circumstances; you may heat your air by means of a vessel of a tubular shape, square shape, pipe shape, or any other shape you like—it is still entirely immaterial to the effect for which my patent is taken out, for the air will pass from the vessel so heated into the blast furnace in a heated state. [Alderson, B.: There is another sense to the word "effect," which would equally answer your purpose, which is this; if the vessel contain a certain number of cubic inches of air heated up to a certain point, the form or shape of the vessel is immaterial, because the access to the cold air, which is supplied from the blowing apparatus at a given rate, itself produces no effect, the effect depending upon the quantity and not on the shape, that will give full effect to the word.] Yes; but in this way of looking at it what I submit is, that the word "effect" does not mean the effect of the air in the vessel which is heating it, and that was the assumption which the learned judge made at the trial, and upon which the jury held it to be inaccurate.

It was not the intention of Mr. Neilson in this case to give any direction, or to make any observation at all, on the effect of heating air according to the shape or form of the vessel; and I say so for this reason, that your lordships are aware, and it is proved indeed by the evidence, that there were many patents at that time in existence for particular shaped vessels for heating the air. Now, supposing that one of those vessels for heating the air had been made adapted to a furnace in one particular place or situation, why the party might use that vessel without

any alteration of effect as regards the object of the patent, namely, the passing of heated air into a furnace; but it may so happen, that another form of patented vessel for heating air might be used with much more economy of fuel, or might in fact produce a higher temperature with a less degree of expense, but still it would be perfectly immaterial to the effect on the furnace; the form or shape of the vessel would be wholly immaterial for that purpose, the purpose for which the patent was taken out. Therefore, the word "effect" here, I apprehend, does not mean at all to apply—it was never considered by the jury to apply at all—to the degree of heat to be given to the air. And if you were to take it even in the way Sir F. Pollock has, for the first time, suggested (for we never heard of this way of reading it at the trial), that the words in the other part apply to the vessel itself, that the vessel itself is to be heated to a certain temperature, that leaves still the question of the specification untouched, because if the vessel is to be heated to a proper temperature, no matter what its size may be, if the air be heated.

*In the Exchequer
E. T., 1841.*

I submit to your lordships that the whole question upon the validity of the specification, that is, on the meaning of the specification, and whether it can or cannot be carried into effect, is a question for the jury, and not for the court, and that the jury are to put their construction upon the meaning of the words, and that the jury are to say whether the words are or not sufficient, and that it is for them to say, whether the specification does sufficiently show the mode of carrying the invention and discovery, which the patentee supposed he had made, into practical effect. [Lord Abinger, C. B.: Why is the specification, which is a written instrument, more particularly to be considered by a jury than any other instrument? The meaning of scientific words must be matter of evidence.] [Alderson, B.: The construction of it is surely for the court.] I do not know quite the extent to which it is supposed the authorities have gone in stating that certain papers are for the court. In many cases, undoubtedly, written papers are for the court, but I apprehend that is by no means a general doctrine of law; but that written papers which involve a question of fact like this, whether or not the party has sufficiently described the invention, that that written paper is for the jury and not for the court, because it is for the jury to say, as a matter of fact, whether there be, or not, a sufficient description in that instrument to enable the parties to carry it into effect. That I apprehend to be a question entirely for the jury. Certainly the whole of this is a question of evidence, and a question of fact. It is a question of fact as relates to the paper; it is a question of fact as regards the evidence at the trial; it is not a question of law at all; and I do not know any

*Some questions
on the specifica-
tion are for the
jury.*

Sir W. Follett
in support of
rule to enter
verdict for the
plaintiffs.

rule which is to say that the court is to construe that specification, and to take it from the jury, because, supposing the fact to be that evidence was given at the trial on scientific matters, which evidence would aid the meaning or the construing of the instrument, your lordships can have no judicial notice of that at all. If it be a written paper for your lordships to decide upon, it must be without evidence. It is not that your lordships can come to a conclusion upon the meaning of the paper, by looking at the evidence at the trial, but if it comes within the rule, that it is a written paper which the court is to act upon, then it must act upon the written paper alone. I think I can show your lordships, that in every single case in which any question has arisen, it has been submitted to the jury, not decided by the

The meaning of
the specification
is for the court,
the words of art
having been in-
terpreted by the
jury.

court. [Lord Abinger, C. B.: Not consistently with my recollections; I have always thought that the meaning of the specification was to be determined by the court. That meaning may be varied by the evidence of particular words. A man must gather as he goes along in order to construe the written instrument. It is quite new to me that it is not to be considered by the court.] [Alderson, B.: Surely the court is to tell the jury what the specification has said. If the specification contains words of art, the court is to say—If you believe these words of art to mean so and so, the specification has said so and so; leaving the question of words of art to the jury. But if there are no words of art, what the specification has said is to be construed by the court. Then it is to be left to the jury, whether the specification having so said, it is or not a sufficient description of the invention according to their judgment.] I do not mean the validity of the specification as to questions in which you may direct nonsuits in point of law arising out of objections of a different kind, but that this question, whether or not the specification sufficiently describes the mode of carrying the invention into effect, that every thing relating to that is for the jury, and not for the court—the meaning of the passages in the specification, and every thing. I should submit to your lordships that the whole of it was for the jury, and not for the court (d). [Alderson, B.: That there are some things in the specification which are questions of fact is true, and there are some things in the specification which are questions of law; the construction is to be given by the court, but the intelligibility of it is for the jury.] That is all I am contending—[Lord

(d) The learned counsel referred to the case of *Hill v. Thompson*, where Lord Eldon says, "the utility of the discovery, the intelligibility of the specification, &c., are all of them matters of fact proper for a jury; but whether or not the patent is defective in attempting to cover too much, is a question of law." *Ante* 237. He also cited and

relied on *Boulton & Watt v. Bull*, 2 H. Bl. 463, in support of the position, that the finding of a jury on the sufficiency of the specification was conclusive; and the case of *Minter v. Wells*, *ante* 134, in illustration of a patent for a principle. The case of *Turner v. Winter*, *ante* 77, and *Bickford v. Shewes*, *ante* 218, were also referred to.

Abinger, C.B.: The intelligibility means with reference to words of science, or matters in it which persons may explain so as to satisfy the jury. You are discussing an abstract principle where it is not necessary; if you take an abstract principle, I must say the meaning of the specification is a matter of law, and that the judge must be informed, by evidence, of the facts, and then he must leave those facts to the jury, for them to find whether they be true or not.]

In the Exchequer E. T., 1841.

The meaning of the specification is matter of law, the judge having been informed of the facts.

One of the points made in this case was, as regards the sufficiency of the notice of objections. "That the said specification was calculated to deceive," is said to be a sufficient notice of objection. Now, for a moment, suppose that it is. The learned judge was good enough to leave to the jury, in the very words, whether or not there was any thing in this specification calculated to deceive, and the jury found distinctly that there was not (e); but in this act of parliament it is said, that the plaintiff is entitled to recover, unless the defendant prove the objection at the trial. The objection relied upon is, that the specification was calculated to deceive—the jury have found that it was not calculated to deceive. That was the objection upon which the learned judge said the defendants are at liberty to offer the objection in evidence. The jury found all of the objections, in fact they found that the specification was sufficient, and they found that the description of the apparatus to be employed was such, that any workman of ordinary skill could make it, and they found that the specification was not calculated to deceive. The jury have found that the specification is sufficient to enable any workman of ordinary skill to construct the apparatus. [*Parke, B.*: A person acquainted either with the blowing apparatus or with the heating apparatus.] In fact, that the specification is sufficient on the face of it, without any other help, to enable a person of ordinary skill, acquainted with the mode either of constructing a blowing apparatus, or of constructing machines for heating air, to carry into effect this patent without any experiment, and without any thing else than the specification itself; so that the jury have distinctly negatived the point so much insisted on—namely, of the necessity of experiments. Now, it does seem extremely difficult to say, after this finding of the jury, that any objection can be made to this specification.

But the notice is not sufficient to let in the objection to the particular passage which is supposed to vitiate the specification.

(e) It having been decided (*ante* 209, n.), that the certificate of the judges under 5 and 6 W. 4, c. 83, s. 6, is to be with reference to the parts of the notice of objections proved, it will frequently be important to obtain the opinion of the jury on the notice of objections for the purpose of such certificate, as well as on the ground here stated

by the learned counsel. But in the case of *Walton v. Potter*, the Court of Common Pleas held, that the learned judge having, in the exercise of his discretion, declined to take the opinion of the jury on particular parts of the notice of objections, was no ground for disturbing the verdict.

Sir W. Follett
in support of
rule to enter
verdict for the
plaintiffs.

At the trial the
notice of ob-
jections must be
proved.

The act of parliament requiring the objections received the royal assent at the close of the session of 1835, a considerable time after the alterations in pleading, which came into full effect in Easter Term, 1834. Whatever, then, the original intention of the framers of that act, it was passed considerably after it had been established by law, that every defence of this nature shall be specially pleaded, and we can only construe the act as it appears in the statute book, without reference to the presumed intention of the parties who brought it in. It has been contended, on the authority of a case in the Common Pleas (*ante* 266), that application should have been made to the court, to compel the party to state more precisely the nature of the objections. But the question comes to this—when a party has given notice of objections, and it appears at the trial, whether or not you are not then to see whether he has given that objection in the way required by the act of parliament, because the act of parliament otherwise throws the onus and the burthen upon him, and whether he has or has not established or proved that objection at the trial. In this case, the plaintiffs could not have applied for a summons to have better particulars of the objections, and for this reason—the defendants do not rely upon the statement that the specification is not enough, but they state the principal objection, upon which they mean to rely, to the specification; and, therefore, if we had taken out any summons before a judge, the judge would have said—what objections can you make? The defendants have here stated, distinctly and precisely, the various objections to the specification. Then we go to trial upon those various objections to the specification, and there, at the trial, one particular objection is raised to the specification, and that particular objection is independent of those with regard to the making and description of the apparatus—and it is this, that one particular sentence in the specification is incorrect. At the trial, no observation had been made upon this in the opening of the plaintiffs' case, but the Attorney General, in his speech for the defendants, calling no witnesses, makes these observations on the specification. The learned judge thought that the objection, that the specification was calculated to deceive, was sufficient to let in the objection. I, therefore, requested the learned judge to leave it in terms to the jury, and the jury found that it was not calculated to deceive. The same question, as to the notice of objections, has arisen under the Bankrupt Act, since the alteration in pleading, and it has been held that notice must be given with the special pleas. And in all cases when an act of parliament requires a notice to be given, notice shall be given fairly to the party, and the objection is to be taken at the trial.

Suppose a party, in compliance with the proviso in the letters patent, enrol his specification, and in that specification he so

scribes the nature of his invention, that a practical mechanic carry it into effect, and suppose there should be some particular part of that specification which, when minutely or philosophically examined, may turn out not to be a correct statement, and no part of the invention; for be it observed in this case, it is not a question whether he has sufficiently or properly described the part invented, but it is supposed, in making a statement with reference to a matter well known at the time to every body, he has made a mistake in the statement of a matter well known, not only to persons of science, but to every practical person; every practical person would know that there is an error, if error there be; then does it follow from that, that the specification is void? On what ground is the specification void? The public are not misled: the public have received all the benefit which was intended by the proviso; every body is misled. Then why is the specification void? Upon what ground do you say, that because I have made a mistake in a matter which every body would correct, the most common mechanic, and which would apply equally well whether it was an error in the copying, whether it was a mere error in writing, or error of any sort or kind in the specification? According to that, even the misuse of a word would vitiate the whole specification, although any person reading it of the commonest kind (because that the jury have found) could not be misled by

Should a mistake in respect of a matter foreign to the invention, and which cannot mislead, vitiate a specification?

Now, my lords, I want to know why that should make the specification void? You will observe that, in this case, it was a part of what he was communicating to the public; he was not telling the public of any means of heating air—he was not telling them the principle or the mode in which air could be heated—that was no part of his patent, nor was he bound to make any communication on the subject; it was no part of his invention or specification; and then, in describing the mode of heating air, it is supposed for a moment that he has misstated a fact—namely, that the shape of the vessel may be unimportant to the heating the air which we and the jury say any body of the most ordinary skill would know was a mistake. I submit that a passage of this sort, assuming it to be inaccurate, does not vitiate the specification, if it be inaccurate of this description, well known to the most ordinary and common workman, and not any matter on which the patent was taken out. Assuming, then, the view of the learned judge at the trial to be correct, that the word ‘effect’ meant effect on the air, that would not make the specification void. [*Parke, B.*: The doubt I had was, whether any case had gone so far as to say you could correct a manifest error in a specification by the evidence of workmen acquainted with the subject, that they should disregard the error, and not act upon it, and correct the error; I

Sir W. Follett
in support of
rule to enter
verdict for the
plaintiffs.

do not think you have found any case that has gone so far as that.] I believe you will find no case in which any specification was ever held invalid upon the ground of any misstatement of this sort or kind in it, where the jury have found that a common workman could carry the thing into effect; and I will undertake to say, that there is no such case to be found, and that no specification and no patent at any time was ever held invalid if the specification was sufficient for a common workman to carry the patent into effect, and that that is really the question in every specification of this kind, aye or no, does it give sufficient information to the public, and is a workman of ordinary skill capable of carrying it into effect? This sort of objection as to the wording of a particular passage in a specification, I am not aware ever to have seen; it is not, my lords, an objection to a specification which I can trace in the books in any case. When the specification is of itself sufficient to enable a common workman to construct the apparatus, I am not aware myself that your lordships, with your greater experience, can state whether there is a case in which the jury have so found, and the patent has, notwithstanding that, been held to be invalid on the ground of some mistake in one particular passage in the specification. I am certainly not aware of any such case, nor do I believe such a case is to be found, and I think I can further venture to say, it is contrary to every principle which has been decided; because it appears on this, that the proviso in the patent requiring a specification to be enrolled which shall give sufficient information to the public, upon which the whole discovery can be used by the public at the expiration of the patent, without any experiments by the parties, has been complied with; and if the specification is sufficient for that purpose the patent is good. That, in truth, is the issue; then, if that be found by the jury, and after the public have had all the benefit, is that patent to be held bad, assuming the finding of the jury to be accurate, which must be done here, because in one passage, in the construction put on it according to strict philosophical principles, that particular passage may not be true, and that not any part of the invention at all, but relating to a matter which was perfectly well known before? [Rolfé, B.: You say you are entitled to import into this, that you are to use some of the ordinary shapes of heating vessels; and then you say, a person will not be misled, because it is said that the shape is immaterial. Must you not go further, and show that as to the shapes of vessels in ordinary use for heating, that between one shape and the other of those it was immaterial?] So I apprehend it is. [Alderson, B.: This is the very point upon which the infringement takes place—the shape of the vessel: it is the very point in the cause. Therefore, if you are to take it in this sense, he is in effect

The proviso is
fully complied
with notwithstanding such a
mistake.

claiming every thing; he is claiming a principle, and there is no particular machine, a machine of any size, or any shape, or any form.] That is the question upon the infringement; but I would answer it with great deference thus—I say we do claim every vessel, and every shape of vessel, closed vessel, in which air can be heated between the blowing apparatus and the furnace.

Uderson, B.: Then I think that is a principle, if you claim every shape. If you claim a specific shape, and go to the jury and say that which the other people have adopted is a colourable imitation, then I can understand it. If you claim every shape, you claim a principle (f). There is no difference between a principle being carried into effect in any way you will, and claiming the principle itself. You must detail some specific mode of doing

Then the rest is a question for the jury.] Then the question comes, as to what you mean by a specific mode. Is it or is it not the subject-matter of a patent, that a person has discovered a valuable principle—namely, that heated air passing through a blast furnace is better than cold air, and that he points out a mode by which that principle can be carried into effect? Now, my lords, what is that mode? The mode is, that you shall heat the air in its passage from the blowing apparatus to the furnace—that you shall pass it into a closed vessel, under which a fire is to be placed, between the blowing apparatus and the furnace—and that, in that vessel so placed between the blowing apparatus and the furnace, the air is to be heated; and I say, with great deference to your lordships, that until this court decides otherwise, I shall venture respectfully to submit that there could not be a doubt that that was a good patent, that it was a good subject-matter of a patent, and that the party had a right to complain of an infringement against any person who should heat the air in its passage between the blowing apparatus and the furnace by means of any vessel, whatever be its shape, provided that vessel was a closed vessel placed between the blowing apparatus and the furnace, subject to the heat at there, and the air heated in its passage. That is precisely the same principle which is laid down in these other cases, and now, my lords, I venture to submit to your lordships, is the subject-matter of this patent, and I say the form and shape of the vessel is entirely immaterial. Let me suppose for a moment that there is no such passage in the specification; would your lordships

*In the Exchequer
E.T., 1841.*

A claim to a principle to be carried into effect in any way you will, is a claim to the principle.

f) But may not such a claim, under certain circumstances, be a good claim? Wherein consists the difference between the claim to the principle of blowing a furnace with hot air instead of cold, and the claim to the principle of condensing steam in a separate vessel, as in Watt's case, and the claim to the principle of the self-adjusting leverage applied to a chair, as in Minter's patent, 126? These cases are all distinguishable

from the class of cases to which the observation of the learned judge—that a principle which is not the subject-matter of a patent must be considered as having an independent existence, and to have been invented *pro bono publico*—would appear to be applicable (see *ante* 342, n.), since in the above cases the essence of the invention is the application of the principle to the specified purpose. See *per* Lord Abinger, C.B., *post* 356.

Sir W. Follett
in support of
rule to enter
verdict for the
plaintiffs.

In the applica-
tion of a prin-
ciple every mode
need not be spe-
cified.

then say, that I, having taken out a patent to apply this valuable principle for heating the air in the vessel between the blowing apparatus and the furnace, was bound to specify some particular shaped vessel, or whether it was not sufficient for me to say, any vessel in which you can heat air? [Lord Abinger, C.B.: I understood you to say this—"My invention is to apply the principle of heating air in its passage to the furnace, by introducing it into an intermediate vessel between the bellows and the furnace, in which it is to be heated by fire, no matter what the shape or size of the vessel is, that must depend upon circumstances and the judgment of the party, I do not claim a patent for the particular vessel." That brings the case to the same as Watt's patent for condensing in another vessel, without describing the shape or the size.] I say it is utterly impossible to distinguish the two cases. [Lord Abinger, C.B.: It appears to me, I own, at present, that a man might take out a patent for inventing a mode of heating air in a separate vessel without stating the size of it, but the question comes back to whether, in the description of the vessel, he does not mislead. Then you pray in aid the verdict of the jury, and say that he does not.] No doubt, my lord, and your lordship will observe that, in arguing the case, I assumed until this moment that we were fully at liberty to say the patent was perfectly good in the manner your lordship puts it—namely, here is a valuable principle, I tell you how to apply that principle; heat your air between the blowing apparatus and the furnace—you can heat it by passing it through a closed vessel; place a fire under that closed vessel, heat it in its passage—you get it from the blowing power by means of a tube or pipe in that receptacle, and out of it by means of a pipe or aperture into the furnace. The form and shape are immaterial. I say that is a patent for applying a principle by a known and given method, and that any vessel by which air was heated in that place, for the purpose of passing air heated into the furnace, would be a violation of that patent. That was distinctly the opinion held by the judge, acquiesced in by my friend, and acted upon at the trial, that that was in truth the patent, and the simple question is, whether the specification is sufficient for the purpose. [Lord Abinger, C.B.: Suppose he had stated in the specification, that he recommended a particular vessel for the purpose of heating air, for which another man had a patent, but he says—"I do not take out my patent for that; the form and shape of the vessel are immaterial—that appears to be the best."] That would be good; and, I submit, that is in substance what he does say, and there is no question about this, that if he had done what it has been said so often he ought to have done—if he had pointed out a particular vessel for heating the air, and had not concluded with a disclaimer, that he did not claim that as part of his invention, there can be

no doubt the patent would have been void. Therefore, sup- *In the Exchequer*
 posing he had described, for instance, a mode of heating the *E.T.*; 1841.
 air through these pipes, if he had not at the same time said,
 "I do not mean to claim that as part of my invention," the
 patent would have been void for this reason. The mode for
 heating air through pipes was perfectly well known, therefore I
 have no right to claim it as part of my invention at all. I am
 not inventing a mode of heating air at all, every body knows it;
 but I do claim this—I claim the principle; for I have a right
 to say, I claim the principle of applying hot air to a blast
 furnace, and I show the mode in which you can carry the prin-
 ciple into practical effect, and that mode is by heating the air in
 its passage from the blowing power to the furnace. There-
 fore, I say, whatever the form or shape of it, that would be a
 perfectly good patent.

I must now pray your lordships' attention for a moment to
 the meaning of the passage itself. It is stated, that "the form
 or shape of the vessel or receptacle is immaterial to the effect,
 and may be adapted to the local circumstances or situation."
 There is no question, my lord, that that is not strictly true, if
 the word "effect" means the effect on the air in the vessel. If
 it means, that the form or shape of the vessel for heating air is
 immaterial for the purpose of heating air, there is no doubt that
 that is inaccurate, because the form or shape of the vessel for
 heating air, like the form or shape of the vessel for heating
 water, is material to the effect produced on the water or the air;
 therefore, if it means that it is immaterial to the effect produced
 on the air in the furnace, there is no doubt that it is inaccurate.
 But is that the meaning of it? Does it mean that the form or
 shape is immaterial to the effect produced on the air in the
 vessel, or does it mean that you may use any vessel you like for
 the purpose of heating your air? Now, I conceive that the
 view taken of it by my lord at the trial—who stated the way in
 which the jury were to look at it, was, that it had reference to
 the heating of the air in the vessel—cannot be said to be strictly
 or philosophically true, because the shape of the vessel for
 heating the air, or the way in which the air is heated, may very
 materially affect the air so heated. I apprehend that is not
 what was intended to be expressed by this passage, and that the
 patentee here meant to say nothing, and to give no directions
 whatever, with respect to the air. I mean, as to the principle of
 heating it, he intended to give no description upon that, as
 any part of his invention. But what is the meaning of this
 passage? It is that you, the proprietor of a blast furnace, may,
 if you please, select any form of vessel now used for heating air
 —you may use any form of it that you like—and it would be
 just the same as regards the effect upon the blast furnace, pro-
 vided it be kept at a proper temperature; the effect of pouring

Sir W. Follett
in support of
rule to enter
verdict for the
plaintiffs.

heated air into the furnace will be the same, no matter what be the form or shape of the vessel which you use. The degree of heat to which you would raise the air may or may not be beneficial, or may or may not be increased beneficially; but as to the effect—namely, the effect of passing heated air into the furnace, it is unimportant what be the form or shape of the vessel you use. I apprehend this was not intended to lay down as an axiom what was contrary to all ordinary principles of heating air—namely, that if you poured air into a vessel, it was immaterial whether the air was exposed to a larger or small quantity of heated surface. That was never intended to be said but it was, that having heated your air properly, having used proper vessel for heating your air, it is unimportant, as regards the effect produced upon the furnace, whether you use one description of vessel or whether you use another. You may adapt it to the local circumstances, you may use any thing you like, it will be immaterial to the effect produced.

The word "effect" occurs several times in the course of the specification, and in all cases it applies to the smelting furnace or the forge, and it does not apply to the air in the furnaces; and what I apprehend it means is this, that the air will come into the furnace without any mischief arising from the nature of the metal you use, it will not alter the effect of the blast on the furnace, nor the strength of the blast by its passing through a tube, nor the mode in which the air enters the furnace; you can do what you please as regards heating the air. If you can only communicate with a tube or pipe with the furnace, it will produce the desired effect on the furnace. [Lord Abinger, C.B.: You do not construe the word "effect" as effect on the air, but effect on the furnace.] Yes, my lord, and I say that is the fair meaning of it throughout; it makes no difference to the effect provided it be properly heated, which the whole thing assumes. [Alderson, B.: The difficulty about that is, that your view of the word "effect," in that particular sentence, makes it almost nonsense, because it is utterly idle, surely, to say, if I have discovered that hot air produces an effect on blast furnaces, every body would agree that it would be immaterial, if heated to a proper temperature, what is the shape of the vessel.] Your lordship will find, that persons acquainted with this manufacture were of opinion that it produced a very different effect on the furnace, according to the mode in which it was passed through for the purpose of getting to the furnace; and as to the question, whether or not they would use pipes for heating the air, one of the witnesses stated that it was the opinion that by using the pipes the air passed too rapidly, and that the consequence of that was, that the effect produced on the furnace was not so beneficial; and therefore the way in which the air passes into the furnace may be very

material in the notion of some persons ; it was because, as the witnesses distinctly stated, the air may be materially affected by the mode of constructing the vessel through which you passed it. It was without reference to heat. The question was, whether parties in applying this principle would use the pipes for the purpose of heating the air, and it was with reference to that—[*Parke, B.* : There was a prejudice against the use of stops in the pipe, because they thought it might destroy the proper force with which the blast came.] There was an impression of that sort in the iron manufacturers beyond all question, which rendered it necessary for the parties drawing the specification to point out to them that it was unfounded, and that the effect produced on the air in the furnace would be exactly the same, whether you passed it through one form or another. That was distinctly stated in the evidence. There was that feeling, and that was one reason why they did not use the pipes to heat the air. Then, I say, this statement in the specification is—no matter how you heat your air ; heat it if you please with iron ; heat it with copper ; heat it with any other metal you like, it will not make any difference in the effect on the furnace ; heat it in any vessel you like ; that is, pass it through pipes with rapidity, pass it if you please into a reservoir, as one of your lordships has stated ; use any mode you like, still the effect on the furnace will be the same, therefore it is unimportant what metal you use for heating it ; it is unimportant what shaped vessel you pass it through, and I apprehend, beyond all question, that is the meaning of it. Keep your air at the temperature you require for the furnace in which you mean to use it, and then it is utterly unimportant what metal, or what form or shape, you use for the purpose. If that be so, there is an end of any question as to the effect of the finding of the jury. Surely, giving the other construction is a mere absurdity, because that is a statement of a matter which it was unnecessary to make a statement upon at all, because it was a matter having no reference to the subject-matter of the patent, and it was a statement notoriously untrue to every person acquainted with the ordinary principle of heating air ; therefore I cannot conceive why, in a patent taken out evidently for a great chemical discovery, by a person well acquainted with chemistry, and the way in which that could be applied, why your lordships are to assume that the sentence in the specification necessarily meant what was an absurdity, and untrue in point of philosophical and chemical knowledge. Therefore, I submit, upon the face of this specification, the point does not arise as to what the effect of the finding of the jury is, for there is nothing inaccurate, and there is nothing untrue in the statement of the specification from beginning to end. I believe that is the only passage in the specification upon which any question or doubt

*In the Exchequer
E. T., 1841.*

*Sir W. Follett
in support of
rule to enter
verdict for the
plaintiffs.*

could have been entertained at any time. Then we come simply and entirely to this, is that one passage inaccurate? That is the first question which your lordships have to decide; and then, if it be inaccurate, has not the finding of the jury cured it? I first of all submit, that it is clearly not inaccurate; I do not know why the court, where there are two constructions, should lean to that construction which will vitiate the patent, and, above all, should lean to a construction which is evidently absurd and false on the face of it. There are two constructions which at least it will bear, and I do hope and venture to submit, that the court will adopt that construction which will support this patent. This is a patent on the eve of expiring, to which no objection has been raised, which the patentee has had the benefit of, which will expire in one year from this time, namely, in 1842, and now the patentee is likely to derive the greatest benefit and the greatest profit from that discovery, which, as your lordships have heard from the other side, is one of the most valuable discoveries of modern times. This is surely not a case in which the court would be astute to be construing words of the English language in a sense which may vitiate the patent, when it is plain they may bear a meaning which will support the patent to the fullest extent. Upon that first ground, I submit that no question arises; but if it did, here is the finding of the jury—the point on the objections has been distinctly put, and found that no one could be misled, no one could mistake it; I cannot conceive how, after that finding of the jury, your lordships can hold this patent void. The patentee has given to the public all that he was required to do—namely, a mode by which this most valuable principle and discovery could be carried into effect—that he has pointed out minutely. Therefore, I do submit to your lordships, that the verdict of the jury ought to be entered for the plaintiffs.

*Kelly, in support
of plaintiffs'
rule.*

Kelly, in support of plaintiffs' rule. I feel bound to call the attention of the court to the preliminary question, whether it is open to the defendants to make the objection which is the subject of the present argument; and I think your lordships will find, that if upon the notice which the defendant has given in, it is competent to him to raise that objection, the provisions of the statute to which reference has been made will be found to be wholly nugatory. Here is an act of parliament passed after the rules of court, requiring all defences to be specially pleaded, under which act the defendant in an action of this nature is bound to give notice of all objections to the patent or specification on which he means to rely, and he is at liberty (that is an advantage given to him), even after he has delivered in a notice of his objections, to apply to a court, or a judge, to be at liberty to add further objections, and to deliver a further notice of objections. What has he done in this case? He has delivered

is a notice of objections which contains at the commencement *In the Exchequer*
an objection in this form: "The defendants further contend *E. T., 1841.*
that the said patent is void, because no sufficient specification
has been enrolled in conformity with the said letters patent in
its behalf." Then follow several particular and specific objec-
tions; that "the description of the apparatus to be employed is
defective, that no workman of ordinary skill would be able
to manufacture the said apparatus merely by reading the said spe-
cification;" and then, that "the said specification is calculated
to deceive;" and further on, that "the specification is invalid on
account of its general vagueness." Now with regard to all these
specific objections, on which reliance was made at the trial, the
court have disaffirmed them. They have found against the de-
fendants on all these specific objections. But then it is said,
I will point out a particular passage in the specification, which
being inaccurate in point of fact renders the specification
insufficient, and so renders the patent void, and when it is
objected that I have given no notice of that particular objec-
tion, I say, that I have. And why?—because I have said at the
head of the objections, that I make this general objection—that
no sufficient specification of the said invention has been en-
rolled in conformity with the provisions of the said letters patent
in its behalf; and under that I may give every objection to
the specification in evidence, which counsel can raise at the
trial." Now let us see what the effect of that is, when we con-
sider that the construction to be put upon this notice is, that all
the particular objections which are enumerated, are those on
which alone the defendants are at liberty to rely; that in truth,
the notice ought to be read as if it were in this form—"I shall
object that the specification is insufficient in this, to wit, that it
is not sufficient to enable a workman to construct a machine;
but it is calculated to deceive;" with other objections: we
understand that he says—"No; I have a right at the trial to
object all the particular objections of which I have given notice,
and to insist on any other objection which will come within the
general form, that the specification itself is insufficient;" and
when we contend that the objections would only tend to mislead
the plaintiffs, the answer is this,—that if the plaintiffs find the
notice of objections too general, or insufficient, they may call on
the defendants before a judge, on summons, to deliver further
notice of objections; and that is an answer which I apprehend
seemed to weigh with your lordships when you were addressed
by the Attorney General. It seemed to be considered for a
moment by the court, that it is too late at the trial to object to
the generality of this notice of objections—that the plaintiffs
ought to have taken out a summons for a more specific notice.
Now let us see practically, whether that is an answer to the
objection which we made. Suppose we had taken out a sum-

*Kelly, in support
of rule to enter
verdict for the
plaintiffs.*

mons before a judge, that this was too general, and called for more specific notice of objections—supposing on that the defendants had added twenty other different objections in addition to the three or four they had made before, and we then go down to trial. Why, my lords, they may still reject every one of which they have given specific notice, and fall back on the expression that the specification is insufficient. Why, then, if the notice of an objection of this kind is to be held to mean this, you need not trouble yourself about the specific objections, they may be raised or not by the defendant at the trial as he thinks proper, but you must be prepared to support your whole specification and your whole patent, not on the specific objections of which notice has been given, but upon any other objection that can be possibly made, of what use is the statute? In every case a defendant, who has been clever enough to discover some new and critical objection in point of law to a specification, or in point of fact, as it may be, will introduce into his notice of objections a general objection, that is, that the specification is void, and he may then follow it up by twenty, twenty-five, or thirty specific objections, to which, of course, the attention of the opposite party will be called, to which he will adapt his evidence when he comes to the trial; they are treated as of no consequence by the jury disaffirming them, and then he goes back to some specific objection, which ought to have been specified, under the general terms he has given, and I know of no escape for that.

The Court of Common Pleas (*ante* 263) have held, that it is not a sufficient compliance with the statute to give a notice which is a mere echo, or a mere reiteration of the plea. Now, if that be once settled, I do think your lordships will find, that to hold that this notice is in the present case sufficient to admit the raising of this question, would be to render the statute entirely nugatory. There is a plea that the specification is insufficient, not stating in what it is insufficient. Here is a notice given of the objections on which the defendants mean to rely for proving that the specification is insufficient. They go on with the particular objections, and it is now to be contended that all those particular objections are perfectly immaterial, no evidence may be offered upon them, or the jury may negative them; they may fall back upon the original notice; and upon that they may raise any objections they may think proper. [*Park*, B.: It is not exactly so: they fall back on the objection, that the specification is calculated to mislead.] If they do that, the jury have negatived it—if that is what they rely on, I am perfectly content, and then I say, the jury have negatived that. [*Park*, B.: That would be open to the question, whether it was competent to me to leave such a matter to the jury; whether the court is not to consider the instrument itself, and if they find it

such as in their judgment would be likely to mislead, whether the patent is not void, although the jury were of a different opinion.] That may perhaps embrace the general question. [Parke, B.: It is obvious if there is not some such control over juries, it would leave it to juries—I should rather say to skilful engineers and scientific men on the part of the plaintiff—to make any patent void, or not, according as they please.] I do not think there would be any great evil in that, if your lordships just consider—[Parke, B.: Whatever the terms of the specification may be, you may say it would be corrected by the evidence of practical men.] [Lord Abinger, C.B.: Your argument is this—that if you had taken out a summons to have better particulars, and they had given you more particulars, but still had left the general objection, that they might have abandoned all the objections at the trial, and given evidence under the general head of objections, which would have been a mere delusion.] [Parke, B.: The question is, whether this court is of opinion, comparing the specification with the fact, that there is a clear misrepresentation in any part of it. The question is, whether that can be corrected by the evidence of men acquainted with the subject, who say they would be themselves able to correct that error by their knowledge of the subject—whether that is permitted.] That may be a question arising in the cause. [Parke, B.: That is the question which I reserved for the opinion of the court. First, what is the true construction of the specification; and if it was as it struck me at the trial, whether it was competent to correct such an error as that by the evidence of men acquainted with the subject; I do not find any case that has gone so far.] That is, of course, one important question for your lordships' consideration on the argument, but that is not the question which arises on this notice of objections; I am on that point only, which is a minor point, as to whether under this notice of objections, looking to the terms and the intent of the statute, it is competent to the Attorney General to raise the question on this particular passage containing the word "effect," in the specification. This expression, "that the said specification is calculated to deceive" must be taken with what precedes it. And what is that? That the description of the apparatus to be employed is so defective, that no workman of ordinary skill would be able to manufacture the said apparatus merely by reading the specification. That the said specification is calculated "to deceive." It is almost a trolly or conclusion from that which has preceded it. He says this (and this is a mere question of fact for the jury)—"Why your specification is such that no workman could make the machine in question from that specification alone, and so the said specification is calculated to deceive or to mislead." Now that very question, in fact, was put by your lordship to

In the Exchequer
E. T., 1841.

*Kelly, in support
of rule to enter
verdict for the
plaintiffs.*

the jury. The jury have found in every way in which it was put, under every modification of language, that the specification was sufficient to enable any workman to construct the machine in question, and that it was not calculated to mislead or to deceive at all. So that, my lords, as a question of fact, and on these specific objections, I conceive that the jury have concluded the question; they have found that the specification was not calculated to mislead or to deceive. The question is whether if the finding of the jury has at once defeated this objection, of which specific notice has been given, can the defendants fall back on the general notice, in the form in which it here appears, that is, that there has been no sufficient specification within the statute? If they can, it seems to me that the consequence will follow which I have suggested, and for this reason the answer given is, that you may take out a summons before a judge, and the judge will order them to specify; that is, to give you more specific objections. If we had done so, and they had given us more specific objections, they would only have multiplied the specific objections which they had already given; they might have given twenty instead of three. [Lord Abinger, C. B.: Suppose the judge made an order on that, that they should deliver particular objections and strike out the general ones.] If there be any power at all in the plaintiff to defeat such a general objection as this, it must be because the judge might have power to order that this should be struck out, for that is what it would come to, the judge must have power to order, not that the objection should be specified, but that the general form of objection should be struck out—and that, with submission, I apprehend the judge has no power to do. [Alderson, B.: I take it he has; he has a general power of regulating those matters. Suppose you take the decision of the Court of Common Pleas, that that means objections differing from the plea itself, then any objection delivered in the words of the plea itself would not be an objection delivered under the statute. I do not know that I go that length, because I think that if the objection in the pleading is sufficiently specific, as stated in the words of the plea, I am not prepared to say that you need give a more specific objection. I do not know that you must necessarily. It may be that the plea itself is quite sufficiently explicit, therefore it would be enough that it should be the words of the plea. It may be that the words of the plea are not sufficiently explicit, in that case they must be more specific. I am not aware that the Court of Common Pleas have laid this down.] I look on it that it really comes round to this question whether upon the notice given, beginning certainly in the general form, and then being followed up by a number of very specific objections, whether the fair construction of that notice is not that it is the specific objections, and those alone, that an

A notice of objections in the terms of the plea may be sufficient.

to be relied on; because, my lords, certainly one does not see how, if that be not the fair construction of a notice of objections of this kind, the statute can be of any use to a plaintiff: on the contrary, one would be led to infer that the statute would be mischievous, because it directed the attention of parties to some specific objections, leaving those perhaps on which the party means to rely entirely unnoticed, so that they are brought upon him by surprise. *In the Exchequer*
E. T., 1841.

With regard to the great question which is raised here, assuming that it is the province of the court to put a construction on the specification, it really turns on the meaning of the word "effect," and the meaning is this. We propose to attain a certain end, to bring about a certain effect by our patent, that is, beneficially to use hot instead of cold air in feeding furnaces, and we are giving you a description of apparatus and the means by which this may be done. One part of the apparatus is a vessel intermediate between the blowing apparatus and the furnace, in which air is to be heated, and we say, in order to attain the end sought by our patent, the form and shape of the vessel are immaterial. [*Alderson, B.*: The end of the patent, as you say, I suppose is the application of heated air to the furnace.] That is the end and object, and I would take the very words appearing in the specification. The effect sought by the patent is the introduction of a sufficient quantity of heated air, and heated to a sufficient degree, into the furnace, to produce a beneficial effect in the smelting of iron. And therefore I conceive, now, that even if your lordships have, as a matter of law, to put a construction on this sentence, or in other words on the meaning of the word "effect," that bearing in mind the nature of the patent, and the object of the patent—bearing in mind also the object and use of the specification—that you will say the word "effect" here means the effect contemplated by the patent, and that it does not mean any particular effect, such as the degree of heat to be produced on any thing else that imagination may suggest, and that if it be taken to mean the effect contemplated by the patent, namely, supplying a sufficient quantity of heated air beneficially to heat the furnace, and to effect a considerable improvement, that then for that purpose the form or the shape of the vessel is entirely immaterial. And, my lords, before I quit that subject, I cannot help asking you what would be the case if the converse had been stated. It is said that this is untrue. If it be untrue, supposing what they meant to contend to be the truth had been stated—supposing they had said "the form and shape of the vessel or receptacle are material to the effect, and cannot be adapted (for it is all one sentence) to local circumstances or situation." Why, then, if we had said that the form or shape of the vessel was material to the effect, we must have stated what the form or shape was to be. Sup-

Kelly, in support of rule to enter verdict for the plaintiffs.

posing the patentee had done so, what form or shape must they have stated? Must they have stated this, which happened to be the one the defendants use? The specification would have been void if he had done so, and void on two grounds; first, it would have been claiming then, as part of the invention, that which was no part of his invention, but was perfectly well known before. But, independent of that, I apprehend it would have been void on this ground—that if a person states in a specification that the form or shape of a part of the machine is material, that it must be of the form or shape he specifies; if the object be equally well attained in any other form or shape, the specification is void on that ground. Not only might it be pirated with impunity on that ground, for that would be a small consequence, but the specification itself would be void for it would import that it could only be by a vessel of a particular and specific form or shape that the object of the patent could be obtained, whereas it might be attained, though not to so beneficial a degree, but still might be attained, by a vessel in some other form much cheaper, and to particular persons, under particular circumstances, much more convenient.

I have submitted these observations on the assumption that your lordships have to put a construction on this sentence, and that it is immaterial whether the jury would have put a different construction on it. I would venture to submit, that no authority is to be found for that proposition. If this be so, it is quite unnecessary to go down to trial. The question may be raised on the record; the plea actually sets out the specification. [*Parke, B.*: You would want the fact, that quantity of surface is material with a view to the effect. You must ask the jury that fact; the question is, whether you are to ask more.] You must ask it in the terms of the specification, and that was what we were perfectly content should have been done; but your lordship put a construction on the word effect, and then, on the assumption of the word meaning that, asked the jury *simpliciter*, is that true? Of course it is not true; the question here is, whether it is for your lordship to put a construction upon this particular word? [*Parke, B.*: Suppose the specification set forth in the plea and the statement, that the size and shape were material to the degree of effect produced.] That would not be a good plea. The answer to it would be, that you must look to the whole specification. [*Alderson, B.*: It must not be pleaded in that form; because that would be a denial that it would be material in whatever sense the word effect is used. The plea must state that it is immaterial to the effect produced in heating the air in the vessel.] Still how could any determination be come to without the aid of a jury? [*Parke, B.*: What facts are to be left to the jury?] That is the question; and with reference to this, I would submit some observations

the nature and objects of the specification. It is not a contract, or a grant, or a libel which, subject to the right of the jury to put a construction upon particular words, is to be construed by the court. The specification is to describe what the invention is, and to point out the mode in which ordinary workmen are to carry it into effect. In truth, it is nothing better than an instruction given by the patentee to workmen, in the particular trade or business to which the patent may refer, to enable them to exercise the invention; it is generally addressed to scientific persons. [*Alderson, B.*: You are proposing to leave to the jury the construction of that which really limits the amount of the right of the patentee as regards all subsequent inventions. To what an extravagant length that goes.] [*Lord Brougham, C. B.*: The question, whether a patent is so worded as that a person of ordinary knowledge will understand it and work it, is for the jury. Then the jury find the meaning of the words, and what persons may understand by them; but suppose a question to arise upon a specification, whether a man has taken out a patent for a principle or an invention—who is to construe that? The jury? Suppose a workman says, the moment I see what the invention is (a new one), I know how to apply it, but all the instructions I do not follow, still I understand perfectly how to do it; it would not deceive me, because I should know he had made a mistake in every sentence; it would not, therefore, be by following the instructions that he would make the invention, it would be his own knowledge, science, and experience, that would tell him what to do.] However that may be, there is a distinction between considering the whole specification, and taking any particular sentence, in order to determine the meaning of that sentence. Now, there may be some sentences in a specification which it might be proper for the court to construe; but surely there may also be some sentences in a specification which it would be peculiarly the province of a jury to construe; words—words of art, words of commerce, words which are used in some sense different from their ordinary sense; those are for the jury, and the jury only, to construe as matters of fact. The present case is something between the two—it is something between putting a legal construction upon the whole specification as the instrument, or even on any particular branch of the specification, and the putting by the jury a construction upon a particular expression. This is a sentence in the specification, and not a sentence in that part of the specification which proceeds to define the rights of the patentee or the extent of his invention, but it is a part of a mere direction to a workman to do the work; he may be supposed to be speaking to a workman not at all about the extent of his own rights under the patent, but merely to be informing the workman as to the size, the

*In the Exchequer
E. T., 1841.*

Some questions
on the specifica-
tion are for the
jury, and others
for the court.

Kelly, in support of rule to enter verdict for the plaintiffs.

shape, the metal of a vessel, which is to be made as part of the machinery. Now, I cannot say that I see any evidence, or any usurpation of the functions of the court in saying, that where a man is giving directions to a workman in a particular trade or manufacture to construct a particular vessel, and those directions relate to the material, that is the metal, and the size, and the form, and the shape, that it may be for a jury to give a meaning to those directions. Suppose a person had been examined as to whether certain directions given by an engineer to a manufacturer for the making of a boiler, or of a pipe, were sufficient to have enabled the manufacturer to have constructed a particular instrument, and those instructions as to the size, and the shape, and the material of which the boiler was to be composed were set forth in special pleading, would it be a question for the jury what was the meaning of those instructions? I apprehend that it would. The court cannot be supposed to know anything about the shape and size of boilers, or of the shape of vessels for heating air. The jury, by means of evidence, would know whether a particular direction for making a vessel to heat air had a particular meaning or not; therefore, my lords, this really does seem to me to range itself within the admitted principle, that the jury are to put a construction on words, and that which your lordships have laid down, of leaving the construction of written instruments to the court. Conceding that, this is something between the two: here is a direction given by an engineer, or a man of science, to an ordinary workman to construct a vessel for heating air—he tells him, first of all, something about the metal or material of which it may be made, and then he says, the form or shape of the vessel is immaterial to the object you have in view, and that it may be adapted to local circumstances. [Lord Abinger, C.B.: You think the meaning of the word “effect” there is to be construed by the jury. That is precisely a case in which the meaning of the words should be construed by the judge. If the words be ambiguous, in one sense to support, and the other to destroy it, I should say that this is to be contended in support of the patent; but the meaning of the word “effect” is for the judge to determine, and not the jury. Whether the word “effect” means the effect in the hot air, or the effect on the blast, is a matter of construction entirely.] [Parke, B.: Assuming the construction I inclined to at the trial to be correct, I wish for some information by cases, whether it is competent to arrest that by the evidence of scientific men, supposing there is an error.] I have not been able to find any authority in which it has been directly and distinctly held, that a clear and manifest inaccuracy would not vitiate the specification. Neither do I find any authority for saying, that an inaccuracy which would not mislead would vitiate the specification. I do not think that it would be safe to act

some cases, because undoubtedly one may put a case of valuable discovery, but which was to be carried into some known machinery, in which the machinery would be actively immaterial, and in which there might be such blunders and inaccuracies in the specification as to fact, from the beginning to the end, an untrue statement of the *modus operandi*, and yet there might be workmen before the jury who would say, we understand this well that we should not be misled by it. But the question, whether any inaccuracy of language—the inaccurate single word, “effect”—it is here of the word effect—which might mislead any body, which will not mislead the man using a blowing apparatus—[Lord Abinger, C.B.: Nobody is concerned with mere inaccurate use of words, which words are often explained by the context, will necessarily avoid this.] I do not know what more this is. [Alderson, B.: This is a remarkable instance, which we mentioned in the course of the argument, where the French word “vice” was used, which was the case of *Bloxam v. Elsee*. The French word “vice” meaning a screw; the English word meaning something very different; yet the word “vice” was used, and in the specification. [Lord Abinger, C.B.: Yes, and the jury understood what it meant.] [Alderson, B.: I think that a drawing which was annexed to the patent, showed that it was a screw.] These cases go to this extent, to show that an inaccuracy in the use of an expression, or perhaps of several expressions, if looking at the whole instrument together would not mislead any ordinary competent workman, they would not invalidate the specification. It seems to me, that if this construction is put on the word “effect,” it could mislead nobody. In this case mainly on the ground, that at least one argument may be put on it—namely, that for which we contend, that our lordships will give it that meaning which is calculated to sustain the patent. And I further contend, that this is not a doubtful; that fairly and reasonably looking at the whole specification, the word “effect” means the object to be effected by the patent, and does not mean any particular effect, or any particular part of the operation. On these grounds I submit, that looking to the specification itself, and taking the view of the jury, there is no substantial objection to the specification, and that the plaintiff is entitled to enter a verdict on this question.

Cur. adv. vult.

B.: In this case of Neilson and Harford, at the judgment of my Lord Abinger, I proceed to deliver his lordship’s judgment. June 26, 1841.
and that of the rest of the court on this question.
We, after much consideration, and not without some hesitation, arrived at the conclusion that the present

Judgment.

rule, obtained by Sir William Follett, for entering the verdict for the plaintiff on the fourth issue, should be made absolute.

Several points were made at the time of the argument, to which we propose very shortly to advert. In the first place, it was contended that the objection to the specification on which I proceeded at the trial, was not sufficiently raised by the notice given under the provisions of Lord Brougham's act, but we all think it was. We concur in the opinion of the Court of Common Pleas, in the cases cited by Sir William Follett, that the act must be construed to mean that a mere copy of the plea will not be a sufficient compliance with its provisions. It was passed after the new rules had required the several defences to be pleaded, and must, therefore, be considered as having intended to give to a plaintiff some additional advantage beyond the information which the record would give him. But that did not mean to say, nor do we think the Common Pleas meant to decide, that it would not be sufficient in some cases to give notice in the terms of the plea itself; the objection may be as completely and so fully expanded on the record, that a mere transcript of the plea itself may be sufficient; in other cases the plea may be so general in its language as to be insufficient as notice, if transcribed from the plea merely. Each case must depend on its peculiar circumstances. But at *nisi prius* we think the only question for the judge is, whether the language of the notice fairly includes the objection taken. If the notice be too general, a previous application must be made to the court or a judge at chambers for redress. Here the language of the notice was very general, and we think it included the objection relied upon.

Then we come to the question itself, which depends on the proper construction to be put on the specification itself. It was contended, that of this construction the jury were to judge. We are clearly of a different opinion. The construction of all written instruments belongs to the court alone, whose duty it is to construe all written instruments, as soon as the true meaning of the words in which they are couched, and the surrounding circumstances, if any, have been ascertained by the jury; and it is the duty of the jury to take the construction from the court, either absolutely, if there be no words to be construed as words of art, or phrases used in commerce, and the surrounding circumstances to be ascertained, or conditionally, where those words or circumstances are necessarily referred to them. Unless this were so, there would be no certainty in the law, for a misconstruction by the court is the proper subject, by means of a bill of exceptions, of redress in a court of error, but a misconstruction by the jury cannot be set right at all effectually. Then, taking the construction of this specification upon ourselves, as we are bound to do, it becomes necessary to examine what the

The notice of objections intended to give the plaintiff more information than the plea; so that in general a notice in the terms of the plea will not be sufficient.

At *nisi prius* the only question, whether the terms of the notice fairly include the objection taken.

The construction of all written instruments is for the court, the meaning of the words and surrounding circumstances having been ascertained by the jury.

nature of the invention is which the plaintiff has disclosed by this instrument. It is very difficult to distinguish it from the specification of a patent for a principle, and this at first created in the minds of some of the court much difficulty; but after full consideration, we think that the plaintiff does not merely claim a principle, but a machine embodying a principle, and a very valuable one. We think the case must be considered as if the principle being well known, the plaintiff had first invented a mode of applying it by a mechanical apparatus to furnaces; and his invention then consists in this—by interposing a receptacle for heated air between the blowing apparatus and the furnace. In this receptacle he directs the air to be heated by the application of heat externally to the receptacle, and thus he accomplishes the object of applying the blast, which was before of cold air, in a heated state to the furnace.

*In the Exchequer
A.D. 1841.*

Now, in the specification, after stating that the air heated up to red heat may be used, but that it is not necessary to go so far to produce a beneficial effect, he proceeds to state that the size of the receptacle will depend on the blast necessary for the furnace, and gives directions as to that. And then he adds—“the shape of the receptacle is immaterial to the effect, and may be adapted to local circumstances.” It is this part of the specification which has raised the difficulty. At the trial I construed this passage as meaning, that the shape was immaterial to the degree of effect in heating the blast, and if this were so, the jury having, by their finding, negatived the truth and accuracy of this statement, the specification would be bad, as containing a false statement in a material circumstance, of a nature that, if literally acted upon by a competent workman, would mislead him, and cause the experiment to fail.

Nor do we think that the point contended for by Sir William Pollett, that if a man acquainted well with the process of heating air were employed, this misstatement would not mislead him, would at all relieve the plaintiffs from the difficulty; for this would be to support the specification by a fresh invention and correction by a scientific person; and no authority can be found that in such a case a specification would be good. To be valid, we think it should be such as, if fairly followed out by a competent workman, without invention or addition, would produce the machine for which the patent is taken out, and that such machine so constructed must be one beneficial to the public. If therefore we had thought, on consideration, that the construction which I put on this clause of the specification was the true one, we should have concluded that the patent was bad, and we should have thought that the verdict should remain as found by the jury on the fourth issue.

But my lord and my brothers, after considerable hesitation, are of opinion, that a construction may reasonably be put upon

Judgment.

this clause which will support the patent; and though I myself still entertain great doubt whether such is the true construction, I am not prepared to say that it is not, and I am very glad, that in so meritorious an invention as this is admitted to be, in this view of the case, the inventor will not be deprived of his reward.

The word "effect" occurs four times in the specification; and it is a just rule of construction to judge of the meaning of a particular phrase by taking the whole instrument together. In the first sentence, the patentee, speaking of the temperature being as high as that of "red heat," adds, that "so high a temperature is not absolutely necessary to produce a beneficial effect." Then he adds, that the receptacle "may be made of iron, but as the effect does not depend upon the nature of the material, other metals or convenient materials may be used." Here he cannot mean that all metals or convenient materials will equally be heated by application of external fire; for some heat more easily, others more slowly; but he means that the quality of the heated air, whether heated in an iron vessel or any other (if heated at a proper temperature), will not materially alter the beneficial effect on the furnace to which it is applied. "Effect" here, then, is equivalent to a beneficial effect; and the passage is this—"but as the effect" to be a beneficial effect "does not depend on the nature of the material," and so forth. The same is, we think, obviously the meaning of the word "effect" in the concluding sentence of the specification. The manner of applying the heat to the air vessel is, however, immaterial to the effect, if it be kept at a proper temperature: in other words, the effect will be a beneficial effect on the furnace, whatever be the manner in which you apply heat to the air vessel, provided only that you so apply it as to raise its temperature sufficiently.

Then, if so, it is not unreasonable, we think, to construe the word "effect," in the sentence on which this question turns, in a similar manner, and to hold it to mean an assertion by the patentee, that though the size of the vessel must be regulated as directed, yet the shape of the air vessel is immaterial to the effect; that is to say, any shape will produce a beneficial effect, and may be adapted to the local circumstances. Now, if this be so, still it casts upon him the necessity of proving to the satisfaction of the jury, that any shape in which the air vessel could reasonably be expected to be made by a competent workman would produce a beneficial effect, and be a valuable discovery. On the present occasion we are bound, as to this point, by the finding of the jury, who have arrived at this conclusion of fact; and if they are right, we think the verdict was not correctly entered for the defendant on this fourth issue, but that it should have been entered for the plaintiff. The rule, therefore, must be absolute.

There is another point, which I need only notice shortly, which

made by the Attorney General, as to the title of the patent. *In the Exchequer*
 It is contended that the title of the patent was itself defective, *A. D. 1841.*
 and did not agree with the invention; and he insisted also that
 the court was competent to raise that objection upon the issue raised
 upon the fourth plea—and probably it was. But we have already
 estimated, in the course of the argument, that we thought that
 that objection was not well founded. The title of the patent is
 for the “improved application of air.” Though that is am-
 biguous, it is sufficiently explained by the specification, and is
 not at variance with it, as was the case in the *King v. Wheeler*. *An ambiguous title if explained by the specification will not vitiate.*
 Therefore we think the verdict on the fourth plea must be entered
 for the plaintiff.

Rule absolute.

Cor. Lord Lyndhurst, L. C.

The Lord Chancellor LYNDHURST: This was a motion to re- *In Chancery.*
 volve an injunction. The injunction had been dissolved by the late *Dec. 14, 1841.*
 Chancellor, the defendants undertaking to keep an account, and *Motion to revive*
 the plaintiffs either to bring or to proceed in an action at law, for *injunction.*
 the purpose of trying the validity of the patent. The action has *Injunction re-*
 been tried, and judgment has been entered up in the Court *vived as matter*
 of Exchequer. It is, under these circumstances, almost a matter *of course, after*
 of course that the injunction should be allowed. *judgment in an*
action at law.

On the part of the defendants it has been stated, that the
 learned judge who tried the cause, and who was one of the judges
 of the court where the question was finally decided, dissented
 from the opinion of the rest of the court; and it is also stated,
 on the part of the defendants, that from the course which the
 proceedings took, they were deprived of their right of bringing a
 writ of error.

I have, in consequence of these objections, thought it my
 duty to read the report of the trial, and of the proceedings in the
 Court of Exchequer. I do not find that the learned judge, to
 whom reference was made, did dissent from the opinion of the
 rest of the court. He said, undoubtedly, that it was a question
 of nicety, and he entertained great doubts with respect to the
 question; but he himself delivered the judgment of the court,
 and said, in the course of delivering that judgment, that he could
 not say that the construction put by the court upon the speci-
 fication was wrong.

With respect to the other objection that was made, namely,
 that the defendants were deprived, by the course of proceeding,
 of bringing a writ of error, the facts of the case appear to be
 clear. Towards the conclusion of the trial, the learned judge
 suggested as the proper course to be pursued, that the facts

*Motion to revive
injunction.*

should be stated in the shape of a special case, or that they should be put upon the record, in order that the case might go, if necessary, to the last resort. The counsel for the plaintiffs assented to this; at least he assented to have the facts stated in the shape of a special case, with a view to its being afterwards turned into a special verdict, in order that the question might be upon the record. The counsel, however, for the defendants, the late Attorney General, finding the opinion of the learned judge with him, thought that a different course would be most advantageous for his client, and he adopted it. He insisted that the verdict should be entered on the issues; and I think in pursuing the course, he waived any further right to a writ of error, and made his election to abide by the decision of the Court of Exchequer. Under such circumstances, I do not think it reasonable, the decision of the court being against him, that he should now turn round, and say, that I ought to have the advantage of the other course of proceeding at the expense of the plaintiffs.

I am the less disposed to depart from the usual course in cases of this kind, after having attentively considered the judgment of the court as compared with the specification. I think the construction put upon the specification is a reasonable construction. The whole question turns upon the meaning of the word "effect" in the specification, as to the sense in which that word was used by the patentee; and I think, adverting to the other parts of the specification, that the construction put upon it by the Court of Exchequer is a reasonable and proper construction; and I think, adverting to the last clause of the specification, that that must be the meaning of the word effect in that clause; and that, therefore, it would be difficult, consistently with the rules of law, by which an instrument must be construed taking it altogether, to have put another construction on the instrument.

An objection was taken, arising out of the form of pleading, by Mr. Roupell; but it does not appear to me that there is any validity in that objection. The case is of this description. The plaintiffs allowed the defendants to use the patent, by way of trial, for a certain period. They did use it for that period, and kept an account, and rendered that account. They were allowed to make this trial with a view afterwards of taking a license, and paying, if they thought proper, a certain allowance for using the patent. They did not take the license. They afterwards continued to use it. They refused to render any further account, in consequence of which notice was given to them to discontinue using the patent; and after that notice was served upon them, it was clear, if they continued the use of the patent, and they did, they would be liable to an action, and liable also to a proceeding in this court, and an injunction. For these reasons, I am of opinion that this injunction ought to be allowed.

Injunction revived.

CRANE'S PATENT.

atters patent, 28th Sept. 1836 (7 W. 4), to George Crane, for *Title.*
improvement in the manufacture of iron."

the said George Crane, do hereby declare the nature of my *Specification.*
ation, and the manner in which the same is to be performed,
ully described and ascertained in and by the following state-
t thereof, that is to say: According to the ordinary practice
btaining iron from iron stone, mine, or ore, in this country,
ron stone, mine, or ore, either calcined, or in the raw state,
rding to its respective qualities, is put into suitable fur-
s with coke, produced from bituminous coal, formerly
d pit coal, in contradistinction to charcoal produced from
d, which was the fuel employed in this country previous to
introduction of pit coal in the smelting and manufacture of
. Now as there are districts in which are to be found large
ities of iron stone, mine, or ore, in the immediate neigh-
hood of what is known as stone coal, or anthracite coal, it
long been considered as a desirable object to employ such
for the smelting and manufacture of iron, and although
mpts have been made to apply such description of coal in
smelting and manufacture of iron, the same have failed and
been abandoned. In addition to such advantages to be
ained from the using of anthracite, or stone coal, in the dis-
s where such coal is found, together with iron stone, mine,
re, from the practice I have had, I am induced to believe
a coal, from its properties, will be found to produce a quality
ron more nearly resembling iron obtained by the aid of
table charcoal. Now, the object of my invention is, the
lication of such anthracite, or stone coal, combined with a
air blast in the smelting or manufacture of iron from iron
e, mine, or ore. And in order to give the best informa-
in my power for enabling a workman to carry out my
ntion, I will describe the process or means pursued by
and in doing so, I will suppose the furnace of an ordinary
struction to be in blast, and that the machinery and appara-
are adapted for the application of hot air blast, as is well
erstood and extensively applied in many places where the
nary fuel (coke of bituminous coal, or the coal in a raw
e) is employed in the manufacture of iron from iron stone,
e, or ore, and I have found that a furnace having suitable
aratus for heating the blast to about 600° of Fahrenheit a
d arrangement for carrying out my invention; though so high
egree of temperature is not indispensably necessary, but I
eve preferable. In charging such a furnace, I throw in
ut three hundred weight of anthracite. or stone coal, or

*Motion to revive
injunction.*

should be stated in the shape of a special case, or that they should be put upon the record, in order that the case might go, if necessary, to the last resort. The counsel for the plaintiffs assented to this; at least he assented to have the facts stated in the shape of a special case, with a view to its being afterwards turned into a special verdict, in order that the question might be upon the record. The counsel, however, for the defendants, the late Attorney General, finding the opinion of the learned judge with him, thought that a different course would be most advantageous for his client, and he adopted it. He insisted that the verdict should be entered on the issues; and I think in pursuing that course, he waived any further right to a writ of error, and made his election to abide by the decision of the Court of Exchequer. Under such circumstances, I do not think it reasonable, the decision of the court being against him, that he should now turn round, and say, that I ought to have the advantage of the other course of proceeding at the expense of the plaintiffs.

I am the less disposed to depart from the usual course in cases of this kind, after having attentively considered the judgment of the court as compared with the specification. I think the construction put upon the specification is a reasonable construction. The whole question turns upon the meaning of the word "effect" in the specification, as to the sense in which that word was used by the patentee; and I think, adverting to the other parts of the specification, that the construction put upon it by the Court of Exchequer is a reasonable and proper construction; and I think, adverting to the last clause of the specification, that that must be the meaning of the word effect in that clause; and that, therefore, it would be difficult, consistently with the rules of law, by which an instrument must be construed taking it altogether, to have put another construction on the instrument.

An objection was taken, arising out of the form of pleading, by Mr. Roupell; but it does not appear to me that there is any validity in that objection. The case is of this description. The plaintiffs allowed the defendants to use the patent, by way of trial, for a certain period. They did use it for that period, and kept an account, and rendered that account. They were allowed to make this trial with a view afterwards of taking a license, and paying, if they thought proper, a certain allowance for using the patent. They did not take the license. They afterwards continued to use it. They refused to render any further account, in consequence of which notice was given to them to discontinue using the patent; and after that notice was served upon them, it was clear, if they continued the use of the patent, and they did, they would be liable to an action, and liable also to a proceeding in this court, and an injunction. For these reasons, I am of opinion that this injunction ought to be allowed.

Injunction revived.

CRANE'S PATENT.

Letters patent, 28th Sept. 1836 (7 W. 4), to George Crane, for *Title.*
"an improvement in the manufacture of iron."

I, the said George Crane, do hereby declare the nature of my *Specification.* invention, and the manner in which the same is to be performed, as fully described and ascertained in and by the following statement thereof, that is to say: According to the ordinary practice of obtaining iron from iron stone, mine, or ore, in this country, the iron stone, mine, or ore, either calcined, or in the raw state, according to its respective qualities, is put into suitable furnaces with coke, produced from bituminous coal, formerly called pit coal, in contradistinction to charcoal produced from wood, which was the fuel employed in this country previous to the introduction of pit coal in the smelting and manufacture of iron. Now as there are districts in which are to be found large quantities of iron stone, mine, or ore, in the immediate neighbourhood of what is known as stone coal, or anthracite coal, it has long been considered as a desirable object to employ such coal for the smelting and manufacture of iron, and although attempts have been made to apply such description of coal in the smelting and manufacture of iron, the same have failed and have been abandoned. In addition to such advantages to be obtained from the using of anthracite, or stone coal, in the districts where such coal is found, together with iron stone, mine, or ore, from the practice I have had, I am induced to believe such coal, from its properties, will be found to produce a quality of iron more nearly resembling iron obtained by the aid of vegetable charcoal. Now, the object of my invention is, the application of such anthracite, or stone coal, combined with a hot air blast in the smelting or manufacture of iron from iron stone, mine, or ore. And in order to give the best information in my power for enabling a workman to carry out my invention, I will describe the process or means pursued by me, and in doing so, I will suppose the furnace of an ordinary construction to be in blast, and that the machinery and apparatus are adapted for the application of hot air blast, as is well understood and extensively applied in many places where the ordinary fuel (coke of bituminous coal, or the coal in a raw state) is employed in the manufacture of iron from iron stone, mine, or ore, and I have found that a furnace having suitable apparatus for heating the blast to about 600° of Fahrenheit a good arrangement for carrying out my invention; though so high a degree of temperature is not indispensably necessary, but I believe preferable. In charging such a furnace, I throw in about three hundred weight of anthracite, or stone coal, or

Specification. culm, to each five hundred weight of calcined argillaceous iron stone, with a proper quantity of flux, as if working with the coke of bituminous coal; such charging of the furnace, and the general working, with the exception of the using of anthracite, or stone coal, is to be pursued as if working with coke of bituminous coal; and I would remark that the quantities above given are such as I have hitherto employed in making the best qualities of pig iron, viz. No. 1, or No. 2, at my works, from the anthracite, stone coal, or culm, found in the neighbourhood of the Yniscedwyn Iron Works; but those quantities may be varied according to local circumstances, and the refractory nature of the iron stone, mine, or ore, or otherwise, to be reduced, and the quality of iron desired to be obtained, as is the case in ordinary working, and at the judgment and discretion of the manager, as heretofore: and I would remark that the anthracite, or stone coal, or culm, may be coked in like manner to bituminous coal, before charging the furnace; but from my experience I have not (so far as my practice goes in working with the coal obtained in my neighbourhood) found that such coking is necessary, or that a more advantageous result is obtained than in applying the anthracite, or stone coal, directly from the mine. And it is desirable to observe I have found it of advantage that the blast of hot air should be as free and unimpeded as possible, and from that account I have hitherto used only anthracite, or stone coal, the smaller parts of which would not pass through a sieve of an inch mesh, but where the pillar or volume of blast is considerable, say two pounds and upwards on the square inch, this precaution is not necessary.

Claim. Having thus described the nature of my invention, and the manner of carrying the same into effect, I would have it understood, that I do not claim the using of a hot air blast separately in the smelting and manufacture of iron as of my invention, when uncombined with the application of anthracite, or stone coal, and culm; nor do I claim the application of anthracite, or stone coal, in the manufacture or smelting of iron, when uncombined with the using of hot air blast. But what I do claim as my invention is, the application of anthracite, or stone coal, and culm, combined with the using of hot air blast in the smelting and manufacture of iron, from iron stone, mine, or ore, as above described. In witness, &c. (a)

(a) The epochs in the history of the manufacture of iron, of which the above invention constitutes one, have already been briefly noticed, ante 16, n. The following inventions, relating to the use of anthracite, are referred to in the subsequent legal proceedings, as showing the previous attempts to apply that fuel in the manufacture of iron.

Letters patent, 23d June, 1904 (44 G. 3), to

Edward Martin, "for making of pig and cast iron of every description from iron stone, iron mine, and iron ore, and of remelting, preparing, and refining of pig and cast iron of every sort, and for the making of such pig and cast iron into wrought or bar iron, by using raw stone coal and culm, to be worked and made by blast."

Specification.—I, the said Edward Martin, do hereby describe and ascertain the nature of my

CRANE v. PRICE & OTHERS.

Cor. Sir N. C. Tindal, C. J. Feb. 11 & 12, 1840.

declaration assigned as breaches, that the defendants did *Declaration.*
 manufacture, and make iron, on the said improved plan,
 imitation of the said invention of the plaintiff, and did
 iron so smelted, manufactured, and made. That the de-
 ts did use and put in practice the said invention, by
 ig, manufacturing, and making iron, in imitation of the
 vention. That the defendants did counterfeit, imitate,
 emble the said invention, and did make colourable addi-
 ereto, and subtractions therefrom. That the defendants
 elt, manufacture, and make iron, with certain improve-
 in the process of such smelting, which were intended to
 and resemble, and did imitate and resemble, the said
 ement of the plaintiff.
 defendants pleaded—1. Not guilty. 2. That the plain- *Pleas.*

tion, and the manner in which the same
 erformed, and the method I use to make
 l and culm to stand the blast, as follows,
 say:—To light the fire in the furnace
 hearth, with free burning wood, and as
 be wood is sufficiently ignited, then to
 all quantities of raw stone coal or culm,
 st (broken into the size of a common
), to continue to feed the furnace finery
 with raw stone coal or culm, till it is
 of vivid fire, before any blast is intro-
 m (in making pig or cast iron) charge
 e in the common way, with due propor-
 w stone coal or culm, clear of dust (in-
 ke or charcoal), with iron stone, iron
 on ore and limestone, then to introduce
 in a very gentle manner for the first
 rs, then to increase the blast gradually,
 day, for the first week of blowing, till
 e is sufficiently hot and burthened, and
 ow to any extent the machinery or the
 capable of bearing, and by keeping the
 gularly and properly fed with materials,
 eping up a sufficient blast, the process
 npleted. And in remelting, preparing,
 ng, of pig and cast iron of every sort,
 naking such pig and cast iron into
 r bar iron, the foregoing method of
 id feeding the hearth or finery, till it is
 d stone coal or culm, must be pursued
 finery or hearth is charged with metal,
 st introduced; then by charging with
 feeding the finery or hearth with raw
 or culm (instead of coke or charcoal),
 roducing the blast in the common way,
 -for success will be produced. In wit-

The specification, dated August 28, 1824, de-
 scribes the invention to consist in combining and
 applying for the general purposes of fuel the
 common bituminous coal with stone coal, culm,
 or anthracite, in proportions varying from one-
 fifth to one-third bituminous coal, and the remain-
 der stone coal, culm, or anthracite; the object
 being to use only so much of the bituminous coal
 as may be found necessary to keep up fire suitable
 to the purpose required, without producing the
 nuisance of smoke. "Such proportions will be
 found to vary according to the qualities of the
 coals, which vary in different situations, and ac-
 cording as the stove grate or furnace in use has
 more or less capacity of draft or windage; but
 these will be easily ascertained by trial. We
 have generally found one-fourth bituminous coal
 to be a good proportion, where the bars of the
 grate are not more than an inch wide and half an
 inch asunder. The stone coal may be either
 applied in the usual form of such coal, or mixed
 with the small or culm thereof, in proportions
 which we recommend to be about one-half, such
 proportions, however, varying as before, accord-
 ing to the draft or windage. By this combina-
 tion the heat and combustion of the fire are easily
 kept up, and the fires of steam engines and other
 large stoves and furnaces of almost every sort
 may be maintained."

Philip Taylor's (A. D. 1825), "for certain im-
 provements in making iron." The invention,
 among other things, consisted in injecting car-
 buretted hydrogen gas into the furnace in which
 stone coal was to be used, so as to supply artifi-
 cially that gas, the absence of which appeared to
 constitute a material difference between anthracite
 and bituminous coal.

As to the patents of Botfield, Neilson, and
 De Vaux, also given in evidence, and referred to,
 see ante 274 & 275, n.

and Harpur's patent (A. D. 1824), "for
 ed method of combining and applying
 ds of fuel."

tiff was not the true and first inventor. 3. Setting out the specification, and averring that the said improvement was not a new manufacture, invented by the plaintiff, within the intent and meaning of the statute, as to the public use and exercise thereof. 4. That the nature of the said invention, and in what manner the same was to be performed, were not particularly described by the said specification. 5. After setting forth the specification by reference to the third plea, and the proviso in the plaintiff's letters patent against their interfering with any previous grant (*b*), the plea stated the grant of letters patent to J. B. Neilson, and averred that the hot blast was, before the plaintiff's patent, in public use with Neilson's license in the smelting of iron, and was the hot air blast in the specification mentioned and referred to. The plea then averred that Neilson's patent was in full force, and that the plaintiff could not use the said hot air blast without Neilson's license, and that he obtained such license before the grant of his patent; and averred further, that the using by the plaintiff of the said hot air blast, as in the specification mentioned, was a using and imitating of Neilson's invention, whereby plaintiff's patent was void.

Replication and rejoinder.

The plaintiff in his replication took issue on the first, second, third, and fourth pleas; and to the fifth plea replied, setting forth Neilson's specification, and averring that the said invention, as described and ascertained in the said specification of the said Neilson, was not and is not the same as the said hot air blast, and the machinery and apparatus adapted for the application thereof, mentioned and referred to in the plaintiff's said specification, as then being well understood and extensively applied in, &c.; nor was nor is the using by the plaintiff of the said invention, as described in his said specification, a using or imitating of the invention of the said Neilson, as described in his said specification, contrary to the form and effect of the said proviso; which averment was traversed by the defendants in their rejoinder (*c*).

Notice of objections.

The following notice of objections was delivered with the pleas:—1. That the alleged invention mentioned in the declaration which the plaintiff in his specification claims, and alleges to consist in the application of anthracite or stone coal and culm, combined with the using of hot air blast in the smelting and manufacture of iron, from iron stone, mine, or ore, is not a new

(*b*) See *Law and Practice*. Pr. F., XIII., n. m., and post 397, n. i.

(*c*) The plaintiff having replied to the fifth plea instead of demurring, the real issue was, whether the hot air blast used by the plaintiff was the hot air blast protected by Neilson's patent. The pleadings admit that the plaintiff had a license from Neilson, but that circumstance does not affect the real question, whether the improved apparatus for applying the hot blast, then

in use by the plaintiff and others, was an infringement on Neilson's patent, assuming the fact that the apparatus described in his specification could not produce the degree of effect, or amount of temperature, necessary for the plaintiff's invention. These pleadings and the trial were prior to the decision on Neilson's patent, which decided such improved apparatus to be protected by his patent. *Ante* 369.

manufacture within the meaning of the statute of 21 James 1, H. Vac., 1840. c. 3, s. 6, for which a patent can be granted, but only using at the same time of a well-known article—namely, anthracite, or stone coal or culm—and of the hot air blast (the latter admitted in the plaintiff's specification to be then well known), each separately in use for smelting and manufacturing iron before the date of the said letters patent. 2. That anthracite, or stone coal or culm, had been publicly used as the only fuel in the smelting and manufacture of iron by Mr. Thomas Harper, at his furnace at Abercrave, in the county of Brecon, and had been so used, mixed with other fuel, by the British Iron Company, at their works at Abercrave aforesaid, and at the Ynisedwin Iron Works, the Landore Iron Works, the Millbrook Iron Works, and the Neath Abbey Iron Works, in the county of Glamorgan, before the date of the said letters patent; and the alleged invention of the plaintiff is only the use of anthracite, or stone coal or culm, with hot air blast. 3. That the using of hot air blast in the smelting or manufacture of iron was not the invention of the plaintiff, but was well known and in use before the grant of the said letters patent to the said plaintiff, as admitted in the specification thereof; and the alleged invention of the plaintiff is only the use of the said hot air blast with the well-known anthracite stone coal or culm; and that the hot air blast was used in the smelting and manufacture of iron prior to the said letters patent, at the works of the said plaintiff, called the Ynisedwin Iron Works, at the, &c. (specifying a great number of other works and places), and also at a great many iron works in the kingdom, too numerous to be individually specified. 4. That the alleged invention of the plaintiff necessarily involves the use of another invention, which was patented before the date of the plaintiff's letters patent—namely, the hot air blast of J. B. Neilson; and that the application thereof to anthracite or stone coal, which was a well-known fuel, was an application all persons were and are at liberty to make, who had permission to use the said invention of the said J. B. Neilson. 5. That the exclusive use of the hot air blast having been previously granted to J. B. Neilson by letters patent, the subsequent patent granted to the plaintiff for the same invention is void. 6. The anthracite, or stone coal or culm, having been well known and in use as a fuel prior to the said plaintiff's patent, the application of such fuel to the smelting or manufacture of iron by well-known methods, is not a new manufacture within the meaning of the statute. 7. That the use of the hot air blast, described in the said specification, produces substantially only the same effect when the anthracite, or stone coal or culm, is used as fuel in the smelting and manufacture of iron, as when any other kind of coal or coke is used for the same purposes. 8. That the specification is defective, inasmuch as it does not describe

the kind of furnace to which the alleged invention is applicable, and it is not applicable to all kinds of furnaces. 9. That the said specification does not clearly state whether or not it is intended to apply to the use of anthracite, or stone coal and culm, as the only fuel, or whether it is intended to include the use of anthracite, or stone coal and culm, together with other fuel.

*Sir F. Pollock
for the plaintiff.*

Sir F. Pollock stated the plaintiff's case. Gentlemen of the jury: The plaintiff has been engaged during the whole of his life in the manufacture of iron, by smelting it from the ore. His works are at Ynisedwin, in South Wales, at no great distance from the works of the defendants at Neath Abbey, who are also manufacturers of iron. The plaintiff is the discoverer of one of the most important, valuable, and useful discoveries that, perhaps, (as I think I should not use an expression too strong if I said) has shed lustre on modern times, and modern improvements, and modern intelligence and enterprise. And, perhaps, in the whole history of the manufactures of this country, future days will present the name of Mr. Crane on the same level with those persons who have advanced the prosperity of their country in the most eminent degree.

I dare say, gentlemen, you are all of you aware, in a general way, of the nature of the smelting of iron. The ore of the iron is first roasted, which reduces it to the state nearly of an oxide of iron, mixed with earth. It is then smelted, an operation which consists of exposing it to the action of some carbonic or charcoal principle at a very high temperature. The charcoal unites with the oxygen, which makes the metal an oxide; and that restores the metal, or rather brings it into what is called its natural state, or rather its pure state, as the regulus of the metal, and in this state flows down to the lower part of the furnace; when this is tapped or opened it flows away, constituting that sort of iron, in its first state, called pig iron or cast iron, in some of the states in which we find it. Sometimes it flows out at once, to be applied to useful purposes, by running into moulds, and is immediately employed for the useful purposes of life. At other times, it flows into the shape of pig iron, which is afterwards submitted to other processes, in order to bring it into the character of wrought iron.

This was a process that, in former times, as you may readily suppose, was performed chiefly by wood; that is, by charcoal, or charred wood. The volatile parts of the wood were driven off by great heat; charcoal was formed, and then the charcoal and the iron ore were exposed to heat in the furnace, an operation which is called smelting. As far back as the reign of James the First, the woods of this country having been exhausted, it became of great importance to apply, if possible, the immense quantities of coal that were ascertained to be in various parts of this kingdom, and to apply that fuel instead of charcoal, which by that

time had become very dear. The Lord Dudley, whose invention constitutes an exception to the statute of monopolies, passed in the reign of James I., under which all patent rights that are claimed in modern times are claimed, first discovered that iron could be manufactured from pit coal or bituminous coal. Now, I do not propose to occupy you in any detail of the process which he adopted. It was chiefly by the application of a blast, in consequence of which he was able to make pit coal applicable to the purpose of manufacturing iron. For many years the process was comparatively imperfect, but it was very important. Iron was made in this country in great abundance, and as the process of Lord Dudley came to be better understood, and when the vast power of the steam engine was applied to increase the blast that worked the furnaces, greater results followed. For many years the iron was not so good as the Swedish iron, made, from the abundance of wood in that country, chiefly or altogether from charcoal.

It was discovered that the manufacture could be considerably improved in various ways. The practice of coking the coal was suggested; that was a great improvement. Some other improvements were introduced, by which it was supposed that, for many purposes, we had at length an iron which was equal to Swedish iron. However, some years ago it was ascertained, I may say a great many years ago, that there were large fields (I hardly know how to use a term capacious enough to give you a notion of the immense tracts of country), which in South Wales produce a particular species of coal, called stone coal, or anthracite. This is a substance, though called by the name of coal, that differs very much from the ordinary or bituminous coal that you are accustomed to see blazing in your grates. The common coal, from whatever place derived, blazes away in a cheerful fire, and breaks up readily; but the anthracite, or stone coal, differs both in appearance, structure, and character, from common coal. It has a lustre which is vitreous and almost metallic: it does not break up easily into pieces, and for many purposes of combustion is wholly and entirely useless. If a piece be put into a common fire, an ordinary kitchen fire, for a considerable time it would give the impression that a stone had been put in; it would remain dark and cold apparently, not at all contributing to the combustion, but rather impeding the fire. At length, if the heat were considerable, it would itself ignite, and burn very slowly, with no flame; and if, after having obtained by great care and artifice a fire, well burnt up, composed chiefly of this coal, the blast of a pair of bellows be applied by way of making it burn brighter, which of course you would do with an ordinary fire, the fire would be blown out. This coal has been known to exist for centuries; it was known to be of no use for domestic purposes; it had never been applied to any of the

Sir F. Pollock
for the plaintiff.

Sir F. Pollock
for the plaintiff.

great processes of smelting; attention had been called to it in various ways. It was thought that there must be some mode by which so plentiful an article, and apparently so tempting and so promising a subject for the philosopher or for the enterprising manufacturer, could be brought into use. You will find that it had been the subject of much consideration, of various attempts, and some patents; it had been the subject of even prizes; rewards were offered for the purpose, to any person who could make use of it, or bring it to bear advantageously in the manufacture of iron. But until the time that Mr. Crane first discovered, that provided you would use a blast previously raised to a temperature of about 600 degrees of Fahrenheit—until he had discovered that which was the subject with him of repeated experiments, and that sort of expense which I dare say you are aware of when the subject of experiment is a furnace on a very large scale—nothing had been done successfully; but Mr. Crane having distinctly ascertained the fact, took out his patent, enrolled his specification, and published to the world that which he had done.

Gentlemen, probably there has very rarely been a discovery of this importance and magnitude, the full value of which was instantly appreciated. Within a very short time the value of all the property around Mr. Crane's premises, and around all the other smelting works, that under his license have begun to work, was greatly advanced in value. I believe I speak short of the mark, when I say that this property became three times its previous value. The iron itself was discovered to be much more abundant in quantity; the same weight of ore gave what they call a larger yield of metal, and the metal that was obtained was itself of a much more valuable quality. The process itself was one of considerable economy compared with the other, for a smaller quantity of fuel was actually used. These advantages were so clear and acknowledged, so instantly felt in the neighbourhood where Mr. Crane lived, that the influential people in that country met together to give Mr. Crane a dinner; and he was, undoubtedly, then hailed as one of the greatest benefactors that had ever come forward to advance the manufactures, and thereby the prosperity, of the country. And the effect of this discovery is, that we shall be able not merely to compete on the subject of iron, of the best sort, with any country on the face of the globe, but that we can now by this process manufacture a much better iron than any that we have been in the habit of importing, for any purpose, from any part of the world. I speak chiefly, of course, of Swedish iron, which has long been considered, for certain purposes, the best iron; and even at the present time, Swedish iron, no doubt, is used for some purposes, although to a much less extent than was the case a few years ago.

Mr. Crane then has brought into use—into most efficient use

—large tracts of this description of coal, which before his invention undoubtedly was considered to be of little or no use, beyond furnishing fuel to some few manufactories. The supply to the London market was very small, indeed so small that the price of this coal was higher than the ordinary coal; not that the coal itself was dearer, for it was a mere drug, it was to be had at a lower price than any other coal at the place where it was to be obtained; but the demand for it was so small, and the quantity which came so inconsiderable, that they could not afford to bring it. It was not an article in sufficient demand to come with that facility so as to be furnished at the cheap rate at which it would have been, if there had been the same sort of demand as there is for bituminous coal. This invention and his discovery has created a source of wealth, wherever stone coal exists, that had no existence whatever before. Probably the price of that article, the value of it, is more than quadrupled, or instead of being an article of no value, it has become now of a value as great as bituminous coal itself, and for the purposes of this manufacture its tendency is entirely to supersede it; wherever it can be obtained, it would supersede it.

But this is not the only important matter; it gives a larger quantity of iron. That is a matter of evidence, and will be made out, I believe, to your entire satisfaction. The iron itself is of far greater value; and if it be required that a discovery should give to the world a new manufacture or substance, the iron that is produced by Mr. Crane's invention undoubtedly has this remarkable feature of novelty—that it is far stronger, and far more valuable, than any other iron that has yet been made by any other process.

The defendants first say, they are not guilty; by which, as I understand, they mean to contend that, because they do not use all anthracite they are not infringers. They admit the use of the hot blast, of the temperature described in the specification, and the use of a portion of stone coal. The plaintiff's invention is not limited to the sole and exclusive use of stone coal; he has discovered that the use of a fuel never before used to any practical extent in the making of iron is practicable in all and every proportion, and that the more of that fuel is used the better will be the iron. The use of that fuel at all is *pro tanto* an infringement of the patent.

The third plea may either mean that iron was made before by the combination of the hot blast with the use of stone coal, or that the invention is not a manufacture. The former will be disproved by the evidence, and the latter will be for the decision of his lordship. Undoubtedly the iron produced is a new manufacture, for such iron was never produced at all before, and no iron was ever produced in the same way before. Had the article produced been the same, which it is not, the producing it by a different process would have been as much

Sir F. Pollock for the plaintiff. protected by a patent as the production of an entirely new substance not previously known. The second plea says, that the plaintiff was not the true and first inventor, and the fourth, that the specification is insufficient. The notice of objections delivered in pursuance of the statute states the specification to be defective in not stating the kind of furnaces, and whether applicable to all. The invention is applicable to all the furnaces alluded to in the specification, and to any ordinary furnace that is made and so constructed as to be in blast, and capable of having a hot air blast applied to it.

The fifth plea is principally matter of law. [The Lord Chief Justice *Tindal*: The greater part of this seems to be matter of law. You might almost make a case of it. The question is, whether the plaintiff is the true and first inventor, if the defendants have any evidence to show that a hot blast was applied to anthracite before.] [Sir T. *Wilde*, S.G.: It will terminate beyond all doubt in a question of law. There are some facts which are material—when the plaintiff invented it, when he obtained his patent, and some other things.] The true question raised by the issue on this plea I apprehend to be, whether it is impossible for any one to use a hot air blast of any sort without infringing Neilson's patent, because, if there be a single mode—if there be any possible hot air blast of any sort which is not Neilson's, then the issue raised on these pleadings must be found for the plaintiff. Be it admitted that Neilson discovered one mode of using hot air blast for any purpose whatever, not applying it at all events to the making of iron with stone coal, the plaintiff gives to the world as his discovery a hot air blast of a temperature of 600 degrees Fahrenheit, that is, about the temperature at which lead will melt. I shall show that there did exist before Neilson's patent a mode described of a hot air blast for a furnace (*ante* 274, n). If any one existed, all that the plaintiff was called upon to say was this,—I care not where or how you get the hot air blast; whether by license under Neilson, or by means before given to the public, of some other improved method. The hot air blast is well known; I claim nothing in respect of it, except the using it in combination with anthracite, and not even that as against any patent. If it be necessary that I should have a license to use a particular kind of hot air blast, I admit that I must get that license. If Neilson had a complete monopoly of all the hot air blasts in the world, the patent, as an improvement on another patent, is unquestionably good. The plaintiff has discovered that the hot air blast used in a particular manner, for a particular purpose, will produce a result incomparably better than has been done by the combination of any other matter to produce the same results; if a particular form of hot air blast cannot be used without a license, that license must be obtained.

But it will be said the plaintiff took a license from Neilson.

The plaintiff's invention was of infinite importance; none in H. Vac., 1840. modern times to compare with it in the benefits it has conferred upon the country; the plaintiff was desirous by every possible means to carry it on to perfection, and having occasion to see what improvements had been made upon the hot air blast, which after all was no part of his invention, he could not tell but that many of the experiments might fall within Neilson's patent, and therefore it was much better for him to pay the small sum demanded by Neilson than involve himself in litigation at the earliest moment when his patent came before the public. The question is, whether the plan—the very plan pointed out by Mr. Crane—is within the scope and compass of Neilson's invention. It appeared better to traverse the fact, believing it not to be true, than to demur to the plea in point of law. Though we had a clear ground to ask for the judgment of the court, I believe this to be of no sort of importance; but still as regards the fact, the plaintiff will be entitled to the verdict. The plaintiff does not suggest the use of Neilson's hot blast exclusively; his patent is not for a mode of getting a hot air blast, of which plenty were known, or for a mode of raising the temperature to 600 degrees; but he says—"Get the hot blast of a temperature of 600 degrees Fahrenheit, by any mode in our power, either under license or not, and having got it, apply it to the making of iron with the assistance of stone coal, and you will produce that superior article for which the plaintiff aims to have a valid patent."

The following is an abstract of the evidence :—John Morgan *Plaintiff's evidence.*
 "I am agent to the plaintiff, who carries on the Ynisciedwin Works. I know the Neath Abbey Works. I was sent there by the plaintiff in May, 1838. The fillers were then using anracite, or stone coal; about 5 cwt. 1 qr. of that coal; no common coal except coke; of that about 9 cwt. There was about 1 cwt. of mine or iron stone to the charge. The hot air blast is used. I have been under the plaintiff sixteen or seventeen years. I partly know the process by which he manufactures his iron. I know the furnace No. 1. In that furnace the plaintiff uses hot blast and coke with stone coal. Sometimes half, sometimes three-fourths, of stone coal. In furnace No. 2, all stone coal is used. In No. 3, he uses all stone coal at present, at least when we started from home (c). Before that he had used coke partly. The plaintiff has now a full supply of stone coal. The plaintiff's hot blast melts lead. I could not tell the heat of the blast at the Neath Abbey Works. I cannot tell whether

c) It was suggested on the part of the plaintiff, that the use of common coal or coke, spoken to by some of the witnesses, was owing to the plaintiff being short of stone coal, his colliery having been newly opened, and moreover the furnace having at one time got into it. See evidence

of Reece Davis on cross-examination (*Printed case*, 26). But the same witness also states, that they found that in the large furnace, No. 3, they did not make so large a quantity of iron with more than two-fifths of stone coal; that they had been working half and half for several months.

Plaintiff's evidence.

the apparatus used was the same or different. I have been in plaintiff's service upwards of sixteen years. The quality of the iron made by the plaintiff by the use of stone coal is better than that made with the cold blast or the heated air and coke; we call it a combination of stone coal. The iron made with the stone coal is the better iron. I do not know the purposes for which the iron is used, or particularly about the quantities of fuel used.

On cross-examination—I overlook the plaintiff's colliery, about four and a-half or five miles from the works. It is bituminous coal. The plaintiff has had all his coal from that place since 1832. I went alone to the Neath Abbey Works. The usual charging is by so many barrows of one sort of thing and so many of another. I took an exact account in writing; it was May 1st, 1838. I have only been there an hour or two. They put in one barrow of stone coal to three of coke. The furnace was charged three times during the hour or two I was there. The mine is in boxes; the fillers told me there was 14 cwt. I saw the hot blast; I looked into the apparatus; there is a place to see it; I said what I came for. I know nothing about the management of furnaces; what I have said about the proportions varying, I have heard from the workmen. I was told to go and look at the furnaces before I started from home. No. 3 had all stone coal; I saw it at the top; I could not see it at the bottom; I was not there when the furnace was charged. The plaintiff gets stone coal close by his works. They were not using free burning coal (d) at the Neath Abbey Works; it was coke. I was last there on the 7th of June, 1838. I have seen free burning and bituminous coal coked when mixed. I have never seen small free burning coal coked. I am coker to the plaintiff. I have tried several times to coke small free burning coal, but could not succeed. Anthracite will not coke. I was last at the Neath Abbey Works on the 7th of June, 1838.

On re-examination—On the 7th of June they were using 5 cwt. and 1 qr. of stone coal, and coke of bituminous coal, as in the month of May.

John Buckland—I am master moulder to the plaintiff. I have been on the works thirty-six years. The works are situated on the anthracite or stone coal formation, which extends to Pembrokeshire, between sixty and seventy miles. I have known of several attempts to smelt iron with stone coal; they all failed. In 1827, we used a small quantity of stone coal, but it was drawn off; that is, no more was put in, we ceased using it. The effect was, that in a short time the twires were shut up, the blast could not get in; it was all clogged. I remember many

(d) The coal called free burning coal was said by the counsel for the defendants to be very nearly stone coal, but not to fall properly under that name; this, however, was denied on the part of the plaintiff. Mr. Mushet informs me, that free burning is the very opposite to anthracite, and of two kinds—the one of a reedy and laminated, the

other of a crystallized structure. That in burning it exhibits no appearance of bituminous or binding matter, but contains pure carbonized hydrogen with a carbonaceous residuum; that the resulting coke is open, and not at all bound together by a bituminous cement. See post 394, n. a.

other experiments in the neighbourhood, here and there ; they H. Vac., 1840. all failed ; we never saw one succeed, or heard of one succeeding. I know the plaintiff's furnace, No. 2 ; it was set to work about February, 1837. A hot blast apparatus was put up ; it was like that (pointing to a model). The furnace was eleven feet two inches across the boshes, the widest part, and forty-three feet high ; it was what is called a cupola furnace. It was charged with stone coal directly it was done. There was a little coke put in to begin, and then all stone coal, and no other iron ; the blast lasted two years and four months, then it was blown out, and we put a new hearth in, and put it in blast again. It was out of blast four weeks. It has been in blast four or five weeks, and was in blast when I came from home. The temperature is about 600 degrees ; it will melt lead ; there is a hole in the pipe which is stopped by an iron plug, and the blast is tested by putting a piece of lead over the hole. Before March, 1837, the No. 2 furnace was burnt with bituminous coal. I have seen the iron produced from that furnace when common coal and cold blast were used ; the stone coal iron is a great deal stronger ; it makes very good bar iron, bolt iron, and cable iron. The furnace yields more iron from the coke put in. The quantity of fuel is less ; it may be to the amount of one-sixth.

On cross-examination—I am the moulder, and have had nothing to do with charging the furnaces. The person who superintended the attempts with stone coal was David Thomas ; he is in America. I saw them throwing stone coal in at times in very small quantities. I saw stone coal used three or four times at Abercrave, about two miles distance ; it was about thirteen or fourteen years ago. Mr. Ward was the manager ; he is dead. It would be in 1827. The plaintiff tried a small quantity in 1827, about the same time ; I cannot say within a month or two. It did not last long at Abercrave. I was there to look at it about three times, and each of these three times they were blowing in stone coal. I never saw so much as a barrowful used before the hot blast came among us ; a shovelful I saw very charge. It was thrown, most of it, on the twire. I do not think it hurt the iron ; it gobbled up the twire. [Sir N. Lindal, C. J. : I do not see the object of this cross-examination, because at the most it is only an attempt made in 1827, in which they did not exactly succeed. There is no doubt the thing is new. The defence is, it is not new.] The hot blast was put up by Allan Mc Kenzie. I thought he came from Mr. Neilson ; he began with No. 2 furnace. It is one of the smallest size furnaces. It was set to work before Mc Kenzie left. A short time after it was set to work it was blown out. The two other furnaces, No. 1 and No. 3, are larger than this one. There was coke coal in all of them about three months after Mc Kenzie left. We have used stone coal in No. 3 for two years, not

Plaintiff's evidence.

alone, but with other coal. I know the iron is stronger by the using it. We cast with it, and knew whether it would hold pressure or not. I do not myself take any account of the yield.

On re-examination—The men are paid by the ton of iron made. There is more iron made in No. 2 and No. 3. I never knew the stone coal used at all with the hot blast before plaintiff's patent. The moulder casts his own moulds. I am caster, and turn out the castings. That enables me to judge of the quality. The strongest iron I have ever seen is the stone coal iron. I never saw iron run better.

Reece Davis—I have been furnace manager to plaintiff for three years. The hot blast apparatus was erected before I got there. I went there the last day of January, 1837. The plaintiff succeeded in making iron from stone coal. The temperature of the blast is kept as near as we can to melting lead. There was coke in No. 2 when I was first there; we began soon after to put stone coal in. About the 7th or 8th of February, we got all stone coal on. That continued for two years and three months. The iron is stronger, and the quantity from the small furnace greater; we get from 30 to 32 tons a week on the average, and before we only got 22 or 23 tons. We burn less coal; from 30 to 32 cwt. of stone coal makes a ton of iron. [Sir N. Tindal, C. J.: All this examination goes to the usefulness—there is no issue on that. They do not say it is not useful; they only say other people knew it before.] [Sir F. Pollock: In a question of prior use or not, the extent of the utility must frequently be a very important ingredient, because if it had been used by any body else, the extraordinary difference would instantly have struck the person so using it. It is utterly impossible that it would not have got into general knowledge and use.] The bituminous coal is the dearest in that part of the country, I think by a shilling or two a ton. No. 3 was begun to work about two years ago. No. 2 was the first which began with stone coal. The furnace was blown in with coke and cold blast, and as soon as the apparatus was ready we put stone coal in; the hot blast was then used. The iron is strongest when all stone coal is used. I was at the Neath Abbey Works twice in April or May, 1837. I saw the defendant, Joseph Price. I told him the plaintiff had sent me up to see how the furnaces were. I told him how we got on at Yniscedwin, and for them to go on in the same way; the furnaces would become in better order. He asked me some questions about our furnaces—what we did there. There was stone coal in use at that time at the Neath Abbey Works, and hot blast. He told me to thank my master for sending me up there; he said, we are all old hands here, we shall find it out; we shall find out the best way of doing it. He said, that at that time their furnaces were not making so much iron, not doing so much; but he said, they were old enough, they would find it out if they had a little

time. I was speaking to Mr. Hosgood, and I told him the best way we found of going on, and I had been on the top of the furnace and round the yard with him. I was in the service of the British Iron Company, at Abercrave, in 1826 and 1827, and for a long time before. They used the cold blast; I never saw the hot blast at all. Mr. Harper, before that, tried stone coal. He built a small furnace to try an experiment. The first furnace was three feet on the boshes, and fifteen feet high. He had been trying in that furnace, and he pulled the inside down and made it a foot larger, and built it nineteen or twenty feet high and four feet on the boshes. He succeeded in the smaller one, and that made him build the larger one. The larger one did not succeed. In the smaller one he first used coke, and then it came to stone coal. They tried the first time all coke, and mixed some stone coal with it, and it failed three or four times. I do not know how many times; and at last they had all stone coal. It succeeded in the smaller, but they only did that to try an experiment. After the larger furnace had been worked about a month, Mr. Harper sold the works to the British Iron Company. They kept it at work ten or twelve months. They sometimes blew the furnace with all coke; Mr. Northall then put some stone coal in. After the British Iron Company had it, the blast was never stone coal; not all stone coal. The twires were sometimes shut up, and we cut them out; that happens in every furnace.

David Mushet—I have been acquainted with the iron districts forty years. In 1826, I was managing director of the British Iron Company. I visited the works of the British Iron Company, at Abercrave, twice in 1826. They were endeavouring to use as large a quantity of stone coal as could be done with propriety. At one time they were using three-eighths of stone coal to five-eighths of bituminous coal, and at another time nearly equal quantities; various proportions had been endeavoured to be used before that. The iron was forge iron; inferior for casting purposes; the quantity was moderate; during the first four months of the blast they made 12 tons, and during the last four from 22 to 24 tons per week. I should consider, in these days, that to be a very small quantity. I thought the iron wretched. The average yield of furnaces in South Wales is nearly 50 tons a week. In my judgment, it did not pay for making; during the last four months, it came to 3*l.* per ton, and during the previous four to 8*l.* per ton. The company never realized 4*l.* per ton by it. I sold one boat load to the Neath Abbey Company, and Mr. Price (one of the defendants), on being pressed to take more, said it was so bad they could not use it. The iron was sent to Staffordshire. The works were, by my advice and direction, abandoned. The company were under a sleeping rent of 400*l.* a year. With

Plaintiff's evidence.

more powerful machinery, a larger quantity of iron would be made, and, so far as that went, this would have reduced the common charges on the cost of production, but it would not have altered the quality of the iron. The anthracite is of an untractable nature; I have heard that many attempts have been made during the last thirty years to make iron with coal. It was a great desideratum in the trade; since plaintiff's discovery, two very extensive works have been erected on the usual scale of pig iron manufactories. I made experiments on the strength of the iron. According to Mr. Gold's experiments, the breaking weight of a bar made in the ordinary way is 173 lbs. I found the breaking weight of a similar bar, made in furnace No. 2, with all stone coal at blast, to be 209½, and in furnace No. 3, with two-thirds stone coal, to be 199, and from No. 1, with one-third stone coal 180 lbs. The iron, with one exception, followed the same rule, being the stronger, according to the quantity of stone coal used. White iron is that species of iron which is deteriorated by the fuel which enters in a less proportion than any other. It is fusible; brittle and inapplicable to any purpose unless mixed with other iron. I saw no white iron at the works at all; all of the furnaces were making white, they were all making excellent grey iron. There is an anthracite association for the purpose of promoting the adoption of stone coal. Their specimens are superb iron. This would do uncommonly well for rails and chain cables (e).

Francis Northall—I was at Abercraze, from April 11 to February 1827. There was one furnace there. The fuel was stone coal and partly coke, but the greater quantity was stone coal. It was cold blast. I tried the stone coal from April to February and Mr. Ward had tried it before: it failed altogether. If we had known as much as we do now, we could have made a better business; but we did not know it; we wanted the hot blast, and nothing else will do but that. The iron cost 6*l.* a ton; the company were losing 2*l.* a ton, if not more. Some of it was good, some middling, and some ordinary iron. I have ob-

(e) This witness was cross-examined at great length as to the coal basin of Wales, and the character of anthracite and of free burning coal, and as to the way in which the different species pass into each other, whether gradually and by transition through an intermediate species between stone and bituminous, to which the term anthracitic might be applied, or abruptly; whether in some cases the anthracite and bituminous did not alternate in very thin layers, so that a person working fairly down would take the two together, and obtain therefrom a good coke. *Printed case*, 35. But Mr. Brough, mineral surveyor for forty or fifty years, stated that he had never seen, and was not aware of, any instance where the strata of stone coal alternate with strata of bituminous coal, or

any coal of a bituminous character, either in thin or thick lamina. *Ibid.* 49. Mr. Mushet further stated that stone coal to be a well-known article of commerce, sold in large quantities for dry and well distinguished from bituminous coal. That as to the term anthracitic, no one but those who puzzled themselves, knew anything about it; that very few distinguished themselves from anthracite; that it is called culm in the Swansea market. *Ibid.* 42.

Mr. Mushet informs me, that his evidence as to the alternation of the stone and bituminous coal had reference only to the first manifest principle in the coal series, the anthracite principle in the Welsh basin. *Ibid.* 394, n. a.

king of the plaintiff's furnaces; the hot blast answers H. Vac., 1840. purpose to him. The quality of the iron is very good, ordinary good; there is no such iron made in this kingdom anthracite coal iron made at Yniscedwin. That made at we was tender cold short iron. On cross-examination says—When we could get the blast through, the iron idling at times; when there was one ton or two that was g, there were ten tons which were bad (f).

William Carpmael—Nearly seventy patents connected the manufacture of iron have from time to time been l. The first making any mention of the use of anthracite is 's (g). The mode proposed is ingenious, but it would fail as the blast comes upon it. He speaks of the blast; ordinary blast of that period was the cold blast; the cold lows anthracite black instead of aiding the combustion. ject of Philip Taylor's (h) patent was to use carburetted en gas, for the purpose of supplying to anthracite that in it appeared to differ from other coal: it failed. A blast was to be used; the ordinary blast at that time was the ast. Botfield's invention is to use, with or without the y blowing apparatus, heated air (i). It is not applied to oal. His invention cannot be used without blowing hot , the furnace, if the ordinary blowing apparatus be used junction with the other apparatus (k). I never heard of

several other witnesses were called, but it efficient to advert generally to the nature evidence. Thomas Strick spoke to the made by the plaintiff being better than ; iron, and to the great change that had ace in the value of property in consef the discovery.

na Brough, mineral surveyor and civil enr between forty and fifty years, was well d with the Welsh coal basin; it is about es in breadth and seventy in length. There ad difference between the anthracite, or d the bituminous coal. Had never seen es where the stone coal and bituminous rmate in strata. Pwlfaron, the defendiery, is perfectly stone coal. Tennant's ich is a branch of the Neath Canal, near adants' works, communicates with the al district. I saw lead melted by the he defendants' works.

Crane's discovery has brought many speinto the country; it is new and useful. s anthracite tried with the cold blast, and

The value of estates has been greatly l. One which only yielded 30*l.* a year urface, now yields 100*l.* in addition, and ably yield from 300*l.* to 400*l.* shortly. anthracite lies many fathoms under the es; and in Caermarthen and Pembrokee is no bituminous at all, because there and to hold the veins; they have been , or never existed. The anthracite is y 200) fathoms under the free burning ey are never intermixed: free burning s not coke.

John Arthur—I had the Pwlfaron Colliery; it is stone coal. I sold it to the defendants in October, 1837. It was after Mr. Crane's patent. I had for some time before offered it for sale. The value of stone coal is increased.

John Crowe Richardson, a chain cable manufacturer—I received some iron manufactured from stone coal; the specimen produced is part of it; it was strained in the usual manner by the hydraulic press, and bore 19 tons: the iron of the same dimensions which I used before would only bear 16½ tons, and the iron was much better than any which I had before used or seen used in the trade.

John Buckland was recalled to identify the specimens spoken to by Richardson, and to prove that they were made of all stone coal.

Mr. David Rosser, a master smith—Never saw iron so good as the anthracite iron.

John Taylor, a bricklayer, was examined at great length as to the progress of the application of the hot blast, with the view of showing that the hot blast used by the plaintiff was not that discovered by Neilson. Mr. Campbell was examined to the same points.

Mr. Hazeldine, engineer at the iron works near Wednesbury, Staffordshire, spoke to the use of the hot blast in their works since 1835.

(g) *Ante* 376, n., bearing date June 23, 1804.

(h) *Ante* 377, n., specification dated February 7, 1826.

(i) See specification, *ante* 274.

(k) This witness spoke to the difference between the hot air blast of the plaintiff and of Neilson, and as to Botfield's and De Vaux's inventions. Printed case, 68-76.

Plaintiff's evidence.

stone coal combined with the hot air blast until Mr. Crane's discovery. So far as my knowledge goes, any attempt, both in America and England, to use any real quantity of anthracite in the making of iron has failed, any portion of it added in the working of the furnace requiring an increased quantity of coke in order to make iron at all.

Mr. George Cottam—I have been acquainted with the making of iron for thirty years. That which is set forth in the plaintiff's specification is new. I always make experiments on any new iron. I cast a bar or two of the plaintiff's iron, and found it very strong. According to my general experience, a bar of ordinary iron, an inch square and four feet long, supported at both ends and loaded in the middle, will break with from 440 to 445 lbs. A similar bar of the plaintiff's carried a weight of one-third more before it took a permanent set; it broke with 599 lbs. I made some very thin castings, less than a quarter of an inch with it. I never met with any thing so tough and strong, except some Swedish pigs made with charcoal. I had some very tender Scotch hot blast, which broke at 403. I mixed some with plaintiff's iron, and it immediately raised it to 500 lbs; I think 518 lbs. was the breaking weight, and we used it all up for that purpose, but it was too dear to go on with. The iron is an exceedingly good iron, and much better than the other iron where strength or where hardness is required; it is tough and hard, which is an advantage. I have tried a great many experiments with stone coal. I tried it under my engine, and by putting a blast to it I found that I could not get a heat; I had a black instead of a red surface.

*Sir T. Wilde,
S. G., for the
defendants.*

Sir T. Wilde, S. G., for the defendants.—Gentlemen of the jury: It is of great importance that due encouragement should be given to talent, genius, and industry, and the expenditure of capital in the endeavour to discover and produce useful inventions; but the fair course of trade and commerce must not be intercepted by persons seeking to appropriate to themselves that, in which, if there be any merit, it belongs to others, and which the whole public have just as much right to use as themselves. The plaintiff has no merit in bringing the hot blast before the public; he heard of it in common with the rest of the world: the use of stone coal in the manufacture of iron was an idea which the plaintiff had no pretence to the merit of having originated; its use, and the advantages to be derived therefrom for smelting iron, and a variety of other purposes, were known. The hot blast, when brought before the public, was not to be limited in its application to any particular purpose; and Mr. Neilson had a right to apply it to any of the purposes to which it could be made applicable. What is there in Neilson's patent to prevent his applying the hot blast to stone coal?

The dates are material. Did the plaintiff spend one sixpence, *H. Vac.*, 1840. or make any experiments before the date of his patent? His patent is dated in September, 1836, and then he sends for Neilson's man, and the apparatus is not put to work until the December or January following. Neilson's patent is perfectly general, and the mode in which the hot blast is to be applied to every kind of furnace, burning any kind of fuel, is described. The plaintiff has done nothing but apply Neilson's patent to known articles, by known means, to effect a known object. Stone coal has been applied to the manufacture of iron; attention was drawn to it; there was no distinction whatever between the mode of manufacturing iron with that sort of coal and with any other sort of coal. [Sir N. C. Tindal, C.J.: Is it any thing but a question of law at the last?] I think not. [Sir N. C. Tindal, C.J.: I think it is not. I have been listening with great attention to it; it must come at last to what is the meaning of the word "manufacture" under the statute; whether the application of a known mode of working the blast, applying it to all purposes, when applied to a known purpose, is a manufacture; and then you come to the other—whether he is the true and first inventor. Then it is again a question of law, whether the applying this knowledge, which is a part at least of the invention, and a very important one, applying it to that which is also known, makes him or not the true and first inventor. I do not see any thing to leave to the jury. The better course will be a verdict here *pro formâ*, subject to a motion, either for a nonsuit, or a special case, or a special verdict, the court to draw any inferences.]

Verdict for the plaintiff accordingly.

CRANE v. PRICE & OTHERS.

Cor. Sir N. C. Tindal, C.J.; *Erskine*, J.; *Coltman*, J.; *Maule*, J.

Jan. 17, 22, & 27, A.D. 1842.

A rule having been obtained in pursuance of the leave re- *H. T.*, 1842. served at the trial, it was arranged, at the suggestion of the court, that the case should come on as a special case, to be argued as nearly as possible as if moving on the judge's notes; the defendants' counsel to begin and to reply; and that the printed copy of the short-hand writer's notes of the evidence of the trial should be adopted, and, with the pleadings and the specifications of certain patents given in evidence at the trial, constitute the special case for the opinion of the court.

*Argument for
the defendants.*

Bompas, Sergt., and *Rotch*, for the defendants. This was an action for the infringement of the plaintiff's patent, the facts connected with which are the following. The hot blast was well known, Neilson having published this to the world under the title of an improved application of air to furnaces. The plaintiff does not assign any particular proportions or mode of working, but says simply, you are to use anthracite or stone coal, and an ordinary quantity of mine, in the ordinary way, and to apply the well-known hot blast to the furnace in the ordinary way.

It will be important to consider the nature of this mineral, its position with respect to other minerals, and its applicability to the same purposes as the other sorts of coal (a).

Anthracite is a valuable fuel, has been used in various ways, and made the subject of several patents (b). It could be used advantageously only under particular circumstances, as in the small furnace at Abercrave (c); it could not be used so well in large furnaces, and it must be admitted that it could not be used with equal advantage with the ordinary coal—but still it was used in some manner.

The plaintiff had three furnaces, two large ones and a cupola furnace, at his works in the western part of the coal field; he sent for Neilson's man to put up a hot blast apparatus, which being completed, stone coal is burnt in the furnaces with the hot blast. There is no proof of any previous experiment or expenditure; and the specification itself admits the previous knowledge of stone coal as a fuel.

With respect to the issues:—The defendants are entitled to have the verdict entered for them on the first issue. There has been no infringement. The specification is for using all stone coal; the defendants are only proved to have used one-third stone coal with two-thirds coke (d); if a patent be taken out for using stone coal, the using any considerable portion of other coal, unless it be merely as a colourable evasion, is no infringement.

(a) The learned counsel relied much on the statement of Mr. Mushet, that anthracite and bituminous coal occasionally alternate with each other—but considerable doubt appears to exist on this head; *ante* 390, n. e. It was contended, that the bituminous and stone coal pass imperceptibly the one into the other in the South Wales coal basin, and that they are intermixed layer by layer, so that persons in some situations, and among others the defendants, would of necessity use a mixture of the two in the ordinary conduct of their works, and that the coal in some places might be called anthracitious. It appears that the bituminous coal overlays the anthracite, the latter being in some cases 200 fathoms below the other, and that the coal is bituminous at the upper and eastern end of the coal basin, but an-

thracite at the lower and western end. See *Martin* on the South Wales Coal Basin; also *Foster* on the same; and *Encyclo. Brit. Art. Coal Basin*. The difference in the constitution, chemically and mechanically considered, is also matter of great uncertainty—what it is which, on fire being applied, occasions the two species of coal to exhibit such different properties. See analysis by Mr. Mushet, in his "*Papers on Iron and Steel*."

(b) The learned counsel commented on the use of anthracite disclosed in the several patents put in. *Ante* 376.

(c) See *ante* 389, as to the dimensions of this furnace.

(d) *Ante* 385.

It appears from the evidence, that a great number of persons II. T., 1842. have used a considerable portion of stone coal before; and the plaintiff says, I have found out how all stone coal may be used: the defendants only use it in the above proportion, and the court will have to say, whether this is an infringement. It was agreed between the parties, that the evidence contained in the report should be referred to as part of the case, and that the court should be at liberty to draw the same inference from it as a jury might draw.

Every species of coal had been used in furnaces. Neilson publishes to the world the use of the hot blast, which had been used to a very great extent when the plaintiff sends for Neilson's man, and sets a furnace to work, and then finds out that to be true which Mr. Neilson had said, that it would be of great use to apply the hot blast to blast furnaces. The plaintiff has claimed the use of anthracite coal, and in the same manner any other person might claim the use of any other coal or particular species of fuel.

Further, the so-called invention is not a new manufacture within the meaning of the statute. The stone coal was well known as a fuel for furnaces, the hot blast was well known for the manufacture of iron, the using them together in a known manner is not a new manufacture. In the case of *Brunton v. Hawkes* (4 B. & Ald. 541), it appeared that the method described of uniting the two parts of the anchor was the same as that by which the different parts of the common hammer and the pick-axe were united together, and *Bailey, J.*, said, "A patent for a machine, each part of which was in use before, but in which the combination of the different parts is new, and a new result produced, is good, because there is novelty in the combination (e); but here the case is perfectly different; formerly three pieces were united together, the plaintiff only unites two, and if the union of those had been effected in a mode unknown before, as applied in any degree to similar purposes, I should have thought it a good ground for a patent, but unfortunately the mode was well known and long practised. I think that a man cannot be entitled to a patent for uniting two things instead of three, where that union is effected in a mode well known and long practised for similar purposes (f)."

In the present case it is quite clear the anthracite and the hot blast were put together in a way well known for purposes well

(e) It may be remarked that, on the test here proposed, the anthracite iron would be a new manufacture, since a new result is attained, the evidence showing — first, that iron was never before made from anthracite alone; secondly, that such iron, or iron having such qualities, was never known before.

(f) This dictum of the learned judge must evidently be limited, and interpreted according to the special circumstances of the case, since cases may be supposed in which the avoiding a joining might be of the greatest importance.

*Argument for
the defendants.*

known before for the manufacture of iron. Every one knew that hot blast could be used for that purpose, and stone coal was and had been used, though not so advantageously. There cannot be a patent for using a thing for the same purpose, in a way which every body knows. In the case of *Cornish v. Keene* (3 Bing. N. C. 370) it was said that that was not the subject-matter of a patent, or a new manufacture, or an improvement of an old manufacture, which was merely the application of a known material in a known manner to a purpose known before, but the court thought the invention a new manufacture, and that the latter part of the description did not apply. In the case of *Kay v. Marshall* (5 Bing. N. C.), it appeared that flax had been spun at various distances, and that this was a fundamental principle of dry spinning; that the machine was made with varying reaches to suit the length of the staple, and that cotton had been constantly spun at a distance of from two to six and a half inches. The court were of opinion that the spinning flax, at a given distance, as two and a half inches, or such other degree of shortness as would suit the continuity of the roving, was not a new manufacture. In the present case every thing is the same: the furnace is the same; coal of every shade, from the bituminous to the anthracite, had been used before; the effect of Mr. Neilson's patent is well known; can a person have a patent for applying that which every body knows is applicable to fuel, to one species? In Kay's case, every one knew that flax could be spun at various distances, and that the machines could be adapted to any distance; so every one knew that the blast could be applied to any furnace.

In *Minter v. Mower* (g) a patent was bad, because the specification included that which had been invented before, on the ground that it would have prevented the prior inventor from using his invention; so this includes that which had been used before, and would have prevented Neilson from applying his hot blast to furnaces and to a fuel, the use of which in such furnaces was well known (h). These cases clearly show, that the use of that which is well known for purposes that are well known and in a manner well known, is not the subject of a patent.

As to the fourth issue, the specification is defective in not stating the kind of furnace, since it is doubtful whether anthracite can be used beneficially in large furnaces; the objection is, therefore, that the specification should have described the difference between a small and a large furnace, or, at all events, have described the kind of furnace with greater particularity.

The issue on the fifth plea is, whether the hot air blast described by the plaintiff is the same as Neilson's, and the

(g) *Ante* 142; S. C. 6 A. & E. 735.

(h) The learned counsel also cited the cases

of *Saunders v. Aston*, 3 B. & Ad. 881, *ante* 75. See *post* 401.

the same as using of Neilson's invention, and in the event H. T., 1842.

the issue being found in favour of the defendants, leave has been given to move to enter a verdict for the plaintiff. It has been held, that if there be any hot air blast but Neilson's, the plaintiff is entitled to a verdict; but if Neilson's be a hot air blast in England, the defendants are entitled to the verdict; if there are some hot air blasts which the plaintiff may use, which he may not use, this should have been stated in the specification. If the plaintiff claims to use the common use of every hot air blast, then Neilson's is included.

A hot air blast than Neilson's is suggested, and the plaintiff worked under a license from him. It is said that the plaintiff would be entitled to judgment *non obstante veredicto*, notwithstanding the proviso in the patent against interfering with the previous patent. The object of the patent is, that the plaintiff obtaining it shall use the specific thing, and nobody else, but that which is granted includes a patent granted before, and the plaintiff is entitled to an exclusive use of the same thing. The crown has the right to grant this second patent, it grants the right to two in succession, and the two grants cannot co-exist since the crown grants to Mr. Neilson the sole using of the hot air blast, and to the plaintiff the right of using it for a particular purpose. The crown says—I grant this patent, provided it does not interfere with any other—it does not say, provided the plaintiff obtain a license; this second grant is void, and the plaintiff cannot be entitled to judgment *non obstante veredicto*. The letters patent restrain every one from using the thing without the license of the patentee; that is a proviso which is a privilege granted to the patentee; but the clause added is for the patentee expressly, and has no effect as to the public (i).

Following is the proviso in question: "And also, that these our letters patent, herein contained, shall not extend, or be so construed, as to extend, to give privilege unto the plaintiff, his executors, administrators, or assigns, to use or imitate any invention or whatsoever which hath heretofore been used or found out by any other of our subjects, and publicly used or exercised in any part of our United Kingdom of Great Britain and Ireland, &c. aforesaid, unto the plaintiff, his executors, administrators, or assigns, or to any other person or persons, who shall be granted the sole use, exercise, or privilege thereof; it being our will and pleasure that the plaintiff, his executors, administrators, and all and every other person and persons, who shall be granted the sole use, exercise, or privilege thereof, shall not practise their several inventions by the plaintiff, his executors, administrators, or assigns, and found out, according to the true and meaning of the same respective patents, and of these presents." The proviso existed in the earliest letters patent only in those before the clause re-

quiring a specification (11 Anne), but also in those before the statute of monopolies. See *ante* 15, n. The object of the proviso appears to be explained by reference to the history of the times. It was the practice to make successive grants of the same thing. A statute, 6 H. 8, c. 15 (*Law & Practice, Tit. Statutes*), was passed, declaring all such second grants to be void, unless the former grant and its determination should be recited in the second letters patent. In the case of Dudley's patent, in which this proviso appears, there had been several other grants, some of which had been surrendered, *ante* 16, n.; there would also be many others practising, with greater or less success, the making of iron with pit coal. It would have been contrary to the common law of the realm, that such second grant of letters patent should have been made, whereby any one would have been restrained in that which he did before. The observations of Sir E. Coke, 3 Inst. 181, and *ante* 31, n. p., are material; where he says—"and thus in Bircot's case it was also resolved, that if the new manufacture be substantially invented according to law, yet no old

*Argument for
the plaintiff.*

Sir F. Pollock, A.G., R. V. Richards, Montague Smith, and Webster, for the plaintiff.

The question of infringement is not now open to the defendants; that is not a question of law, but one of fact, which was conceded at the trial, or the opinion of the jury would have been taken upon it. It appears from Morgan's evidence (*k*), that the defendants were using a considerable proportion of stone coal, and for any thing that appears to the contrary, when Reece Davis was at their works, in April or May, 1837, they were using all stone coal and hot blast (*l*); it further appears, that the defendants' colliery, purchased since the plaintiff's patent, is stone coal, and that the hot blast in use at the defendants' works was of a temperature to melt lead, which is known to take place about 600 degrees Fahrenheit (*m*). The plaintiff's invention is the beneficial use of anthracite. A partial use of anthracite is equally an infringement of the patent, which is for making iron by the combination of hot blast and anthracite. The evidence being, that the best iron is that made with all anthracite (*n*), the patent is not to be evaded by a party using a part of the invention, and being contented with a part of the advantage.

Under the second issue, whether the plaintiff was the true and first inventor, it must be assumed that some invention has been made; the only question then is, whether the plaintiff was the person who first published this invention to the world? Now, it has not even been suggested that any person before the plaintiff made and published to the world the beneficial use of anthracite, in combination with the hot blast, in the manufacture of iron. The various patents put in (*o*), independent of the other evidence, show how many other persons had made attempts and experiments—but it is not suggested that the plaintiff learned his invention from these or any other sources; on the contrary, the plaintiff is recognised and hailed by a large body of his neighbours deeply interested in the prosperity of South

manufacture in use before can be prohibited. The question then would appear to be one of fact; was the manufacture said to be prohibited in use before—was it in actual use? not was it so included or involved in that which was done or published before, that its use might be conceived to have been contemplated. The words of the proviso make this clear and distinct; it forbids to use or imitate any invention heretofore invented and found out." The proviso in effect says this—the before-mentioned grant shall not extend to give you the exclusive use of any thing which was the common property of the public at the time of the grant, or of any thing in which another had already an exclusive privilege. And it is material to observe with respect to the above proviso, that it differs in form and in legal effect from the other provisos contained in the letters patent; it is not like them a condition upon which the grant is made, and which, if not

strictly satisfied, the grant will be void or voidable, but it is a proviso for the protection of prior patentees and of the public, declaring that their rights shall not be interfered with under colour of the subsequent grant. This clause would in all probability be a good plea in confession and avoidance, or a ground for repealing letters patent which had been used in fact to the prejudice of prior patentees, but it would appear to differ very materially from the other provisos above referred to. In effect, it seems to amount to a declaration, that the said letters patent shall not be an answer to any action by a party for an infringement on his prior patent.

(*k*) *Ante* 388.

(*l*) *Ibid*.

(*m*) *Ante* 391, in Mr. Brough's evidence.

(*n*) *Ante* 390, in Mr. Mushett's evidence.

(*o*) See the patents, *ante* 376-7, in notes, for the use of stone coal.

he discoverer of something which was a great benefit to the country, and to all connected with the anthracite district. This is fully borne out by the evidence as to the sudden increase in the value of that species of property. The observation of the defendant, Joseph Price, that they were all old and would soon find it out (*p*), is an admission that the defendant was the inventor of something, for the discovery of which expenditure of time and thought was necessary. The defendant contended under the third issue, that this something which the plaintiff has discovered is not a new manufacture within the meaning of the statute of James. This involves two questions—whether the said invention is a manufacture? and, secondly, whether it be new? On the latter of these questions, a doubt can hardly be entertained. It is clear from the evidence, and in fact it is admitted on the part of the defendant, that a great variety of attempts had been made to smelt iron with anthracite or stone coal, but that they had all been abandoned. It is for the defendant to make the case that the invention or manufacture was used before. The evidence shows certain general facts, from which the novelty of the invention or manufacture almost necessarily arises—as, for instance, the extent of the anthracite used; the great desideratum of a method of using it; that none of the plaintiff's patent there was not a single smelting of iron from anthracite; hence, for the purpose of the manufacture of iron, the discovery of the beneficial use of anthracite was the discovery of a new fuel or ingredient in the iron smelting furnace. The defendant says it was used before—where, and to what extent? Was it in use at all at the time of the plaintiff's invention? Had it even been used in connection with the hot blast? There is no evidence whatever that it has been so used. The patents which have been granted and which have been relied on in the argument on the part of the defendant, furnish the strongest evidence in support of the case, showing, as they do distinctly, the nature of the invention which had been made. But it is said that iron was made in 1827, at Abercraze, with anthracite. What was the result? That in a model furnace, three feet across the widest part, and fifteen feet high (an ordinary furnace being fifteen feet across the boshes and forty-five feet high) succeeded in making iron with anthracite and cold blast. They then set to work with a larger furnace, but the iron was small, the quality so indifferent—tender and cold that it could hardly be got rid of, even at a loss of from a ton. After struggling on for about a twelvemonth,

Argument for the plaintiff.

the works were abandoned, although the company were under a sleeping rent of 400*l.* per annum. Contrast this with the state of things immediately after the publication of the plaintiff's invention. A sudden advance takes place in the value of an anthracite property; the iron is pronounced to be the best now made; the plaintiff is hailed as a great discoverer; and, on the argument, the great value of the invention has been fully admitted.

But it is said, that the invention is not a manufacture in which a patent can be granted—that it is simply the use of anthracite, a known fuel, in a way well known before. Nothing is more fallacious than this mode of speaking of an invention that it is only so and so; discoveries which have reflected the greatest honour and benefit on mankind have been but the application of some well-known substance, or some well-known laws and properties of matter; obvious and simple in the extreme when found out. The invention may be considered in any of the following ways; as the introduction of a new fuel in the smelting of iron; as a new mode of making iron; or as a mode of making a new iron, *i.e.* as a new article, a new combination of matter. Had anthracite been recently discovered as a fuel, can it be doubted for an instant that its application to the manufacture of iron would have been the subject-matter of a letters patent? Wherein consists the difference between this and the present case? It was known and used as a fuel for some purposes, but practically useless for the manufacture of iron. The plaintiff has published to the world in what manner it may be rendered useful. There are many cases in which the application of a well-known article, in a manner well known before, in the manufacture of an article well known before, has been held to be the subject-matter of a patent. In *Derouet's* case (*q*), the invention was the application of charcoal as the filtering medium for syrups of sugar. Charcoal was well known, and had been used as a filtering medium for almost every liquid, but before the patent had not been applied to the manufacture of sugar. In *Hall's* patent (*r*), the invention was the application of the flame of gas to singe off the superfluous fibres of lace, and other similar fabrics, having holes and interstices. In *Dudley's* patent (*s*), excepted in the statute of monopolies, the invention was the use of pit coal instead of wood in the manufacture of iron. In all these cases the result attained was old, but the novelty or invention consisted in the manner of

(*q*) *Ante* 152. See also Hartley's patent, *ante* 54, and end note.

(*r*) *Ante* 97 & 99, n.

(*s*) *Ante* 14. It appears, *ante* 16, n., that a great variety of patents for the same object had been granted, but failed. See also Buck's invention

for melting iron, &c., with stone coal, *ante* 36; and Mansell's patent, *ante* 17, for substituting coal for wood in the manufacture of glass. The similarity between the subject-matter of these and the plaintiff's patent is remarkable.

aining the result; the novelty of a manufacture may consist H.T., 1842.
 her in a new mode of attaining an old result, or in a new
 ult attained by old modes. Suppose the iron in the present
 e to be old, that is, to be substantially the same material as
 s obtained before. Then the novelty consists either in the
 ocess of making, or in its being composed of certain materials.
 ppose the invention a mere process, then any change in the
 ler of the process, or generally in the *modus operandi*, con-
 tutes a new manufacture (t). The inventor may fail in the
 xification of the invention, and in all the cases cited in the
 gument for the defendants, with the exception of Brunton's
 e, the defect has been of this nature. In *Saunders v. Aston* (u),
 e real invention was an improved button, in which the old
 ible shank was substituted for the old metal shank by the
 ecial aid of a collet, but this was not so claimed or pointed out
 the specification as the invention. In *Kay's* case there was
 e same kind of defect. The immediate result of Kay's invention
 s to put flax spinning on the same footing as cotton spinning,
 d to increase the manufacture of that article many thousand
 d. No one who is aware of what Kay did for that depart-
 mt of our manufactures can doubt for an instant that an
 vention existed, in fact, which if properly specified was the
 bject of a valid patent. But the court on the construction of
 e specification separated the invention into two distinct parts,
 respect of either of which, taken independently, the patent
 uld not be supported (x). The position of the plaintiff resem-
 es that of Mr. Kay, in respect of the extraordinary nature of
 e result produced. The large coal basin of South Wales, before
 mparatively valueless, has now become most valuable prop-
 erty. In the case of *Brunton v. Hawkes* (y) the objection was
 at the anchor was not new, the adze or mushroom anchor,
 wing the parts united in the manner described in the specifi-
 tion, being in use before the patent; so that a part of the
 vention specified and claimed in that case was old. Further, the
 ervations in that case respecting the amount of the invention,
 its sufficiency to support letters patent, cannot be relied on,
 id reasoning of that kind, as has been already remarked, is

(t) A remarkable instance of the kind has re-
 cently occupied the attention of the Court of
 Queen's Bench, in the case of *Helliwell v. Dear-*
son. The object of the plaintiff's invention was
 rendering fabrics waterproof, but at the same
 time leaving such fabrics pervious to air. It ap-
 peared, that before the plaintiff's patent a solution
 of alum and soap was made, and the fabric to be
 rendered waterproof was immersed therein. By
 this means a waterproof surface was produced on
 the fabric, but it was not of a lasting nature—it
 wore off. According to the plaintiff's invention,
 the fabric is immersed first in a mixture of a so-
 lution of alum with some carbonate of lime, and

then in a solution of soap. The effect is, that by
 the first immersion every fibre becomes impreg-
 nated with the alum, the sulphuric acid of the
 alum being neutralized by the carbonate of lime,
 and by the second immersion the oily quality
 rendering it repellant of water is given to every
 fibre, so that each fibre is rendered waterproof
 instead of the surface only; but the whole fabric
 continued pervious to air.

(u) 3 B. & Ad. 881, and *ante* 75, n.

(x) *Kay v. Marshall*, 5 Bing. N. C. 492, & *post*.

(y) 4 B. & Ald. 450. See note on this case,
post 409, n. e.

*Argument for
the plaintiff.*

extremely fallacious. What evidence can the result furnish of the labour and painful thought which may have been expended? The perfection of invention is simplicity of means to the end; and the progress of any particular invention is always marked by the adoption of simpler and cheaper methods. It has been expressly held to be no objection to a patent that the invention was the result of accident (*z*), many of the greatest discoveries have originated from that source. What test or measure can exist of the amount or magnitude of the invention?—the only practical test is its benefit and utility. What merit in respect of the invention is due to the introducer of a manufacture from abroad? But the rights of such patentees are recognised by law. It is for the benefit to the country and the public that the patentee is rewarded. The magnitude and nature of the consequences produced afford the best evidence, and a certain measure, of the sufficiency of an invention to be the subject of letters patent. In the present instance, there is abundant evidence of design, labour, and expense. It has been urged that the plaintiff has done no more than any one might have done, namely, get a license from Neilson, and use the hot blast to his furnace, charged with stone coal. But how came it to pass that no other person did that during eight years? Was it so obvious, after the repeated attempts to make iron with, and the abandonment of, this untractable fuel, that it could be used beneficially for this purpose? Did it require no experiment to determine that a temperature of about 600 degrees Fahrenheit was the proper temperature, or to ascertain what would be the probable effect of the hot blast on the anthracite, or on the quality of the iron, and yield of the furnace, it being an indisputable fact that the use of the hot blast produces in many cases iron of inferior quality to that made with the cold blast? Was it quite obvious what proportions of coal and mine would answer, or what should be the size of the pieces of anthracite under a certain pillar of blast, it being well known that one insuperable objection was the difficulty of getting the blast through the anthracite? The plaintiff has, in his specification, given directions on all these points, and yet it is to be said that he has made no experiments, that it has been a mere lucky hit, so obvious to every one that no merit is to be given to the inventor, notwithstanding the benefit derived from the invention and the magnitude of the result. What experiments would satisfy the other side; experiments requiring an outlay of many thousands, and a duration of many years? Iron cannot be made in model furnaces, as the failure of the Abercrave speculation shows, or in private; and the policy of the patent law renders it imperative

(z) *Per Lord Mansfield, ante 54, and see note d, ibid.*

on a person to hazard his scheme before in some cases he can H. T., 1842. have assured himself of its success. The plaintiff has boldly run the risk, and the principle of the patent law is, that he who has had the charge shall reap the reward.

Further, the result of the manufacture, the iron produced, is a new substance; a new combination of materials. An attempt has been made to show that anthracite and bituminous coal run into each other, and that in some places one could not be used without also using the other; this is absolutely denied by some of our witnesses, and appears to have been a misunderstanding (a). But is it doubted for an instant that the intractable substance called by the name of anthracite, or stone coal, which becomes black when blown with cold blast, is not well known? The defendants' own notice of objections states it to be a well-known substance (b). Is then an invention of this nature to be frittered away by the chemical and scientific evidence of persons, who tell you, in conclusion, that no one knows any thing about it theoretically but those who puzzle themselves (c), but that practically every one knows what is meant by stone coal? Further, suppose a person to have discovered that iron could be made from rubbish, hitherto rejected as useless, by dealing with that rubbish in a particular manner, this would be a perfectly good subject-matter of a patent. This was decided by Lord *Eldon*, L.C., when he said, there may be a valid patent for a new combination of materials previously in use for the same purpose, or for a new method of applying such materials (d), in which case also part of the invention was making iron from slags or cinders. The combination of the hot blast and anthracite is new, and the result produced is a new iron; an iron of better quality than any before produced, and with less consumption of fuel (e). What other test can be adopted? The substances were never employed together before, and the result obtained is for the purpose of use and commerce a better and a cheaper article; it resembles more nearly than any other the iron from vegetable charcoal. The uniform tenour of the decisions shows any modification in the manner of making an article of commerce, whereby the price is diminished, or the quality and general utility of the article produced are increased, to be a new manufacture, even though all the substances were known and used (f). It has been objected, that the plaintiff continued his experiments after the grant of the letters patent;

(a) See Mr. Mushet's evidence, ante 390, and *ots e.*

(b) Ante 379.

(c) *Ibid.* 390, n. c.

(d) *Hill v. Thompson*, ante 237. See also *per Abbott, C.J.*, in *R. v. Wheeler*, cited in the judgment, post 409.

(e) Ante 387.

(f) The following cases were cited and referred to: *Per Ellenborough, C.J.*, in *Huddart v. Grimshaw*, ante 86; *per Eyre, C.J.*, in *Boulton & Watt v. Bull*, 2 H. Bl. 494, and ante 56, n. See also *per Buller, J.*, ante 71, n. e., and the cases mentioned in the judgment, post 409.

Argument for the plaintiff.

but this he is bound to do, and to give the public the best means with which he is acquainted up to the time of making his specification. This question was decided in *Crossley v. Beverley (g)*, and the authority of that case has been confirmed by many subsequent decisions.

On the fourth issue, the sufficiency of the specification to enable any person acquainted with the manufacture of iron to practise the invention, no question has now been made. It is clear on the evidence, that anthracite, in combination with the hot blast, may be used beneficially in all furnaces; but it is a question yet undecided, what size of furnace is the very best for the manufacture of iron according to the plaintiff's invention. Further, every specification must be examined according to the state of knowledge at the time (*h*).

Upon the fifth issue, several questions have been made. It is contended on the part of the plaintiff, that the specification includes every kind of hot blast; and then, with reference to the issue of fact, the question arises, whether the hot air blast used, or contemplated to be used, by the plaintiff, was substantially the same as Neilson's (*i*). With respect to the latter part of the issue, the question is simply whether, supposing the hot blast referred to in the plaintiff's specification to be the same as Neilson's, and that the plaintiff's invention cannot be practised without the use of that hot air blast, his patent is void by reason of the particular proviso inserted in the letters patent (*k*)? or, which is the same question, whether letters patent for an invention which cannot be put into practice without infringing on a previous patent still in force, or letters patent for an improvement on a patent still in force, are void in law? It is said, that Neilson has a grant for using hot air blast for all purposes, and that the plaintiff has a subsequent grant for using it for a particular purpose; and that therefore the latter grant interferes with the former, contrary to the above-mentioned proviso of the letters patent. But grants of this nature must be construed according to the state of knowledge at the time, and the intentions of the party, as they can be gathered from the words of his specification and his acts. In *Crossley v. Beverley (l)*, it was objected that a patent for a gas apparatus was bad, because the specification spoke generally of coal and any other substance capable of producing gas for illumination, and it was proved

(g) *Ante*, 117. See also *per Tindal, C. J.*, in *Jones v. Heaton*. "The patentee is bound to give in his specification the most improved state of his invention up to the time of enrolling his specification."

(h) On this point, see *post* 405.

(i) As to this, see the judgment of the court, *post* 412. The trial at *nisi prius* was prior to the decision in Neilson's case, *ante* 369, by which

the improved method of obtaining the hot blast subsequently introduced was held to be included in his patent. It is unnecessary here to give any report of the argument on this point. See *ante* 378, n., and judgment, *post* 412.

(k) See the proviso, *ante* 397, and some observations upon its form and effect.

(l) *Ante* 107.

that the apparatus described would not answer at all for making H. T., 1842. as from oil. But Lord *Tenterden*, C. J., said—"the patentee must be understood to mean things that were in use, and not things which would produce gas, as every thing inflammable would, but from being so expensive was never expected to be in use." And again—"a man must have the spirit of prophecy if he knows that people will apply those things to the purpose for which they were not considered applicable at the time" (m). Had Neilson, or any person, the least conception that anthracite, that intractable fuel, the attempts to use which were so fruitless that a company abandoned their works though under a sleeping rent of 400*l.* per annum (n), could be rendered useful for smelting iron? Neilson's patent was in existence for eight years before the plaintiff's patent. Suppose the patent had expired, and a considerable interval, say fifty years, had elapsed, before any person had been at the pains and expense to try once more that intractable fuel, and to see whether, by a proper hot blast and proper adaptation of other things, it could be used in smelting iron. Can it be doubted that, under such circumstances, the patent would have been valid? Is the invention then less the subject of a patent, because the hot blast itself has only been discovered for some eight years, instead of having been known for a longer period, or always known? But it is said that Neilson is prejudiced. In point of fact he has been greatly benefitted, since by reason of this discovery a license under his patent has been taken not only by the plaintiff but by many others.

The proviso can only mean, that a subsequent patentee shall not use the prior invention without a license from the prior patentee. If this be not the meaning, the greatest mischief instead of benefit would result, since the progress of improvement would be stopped during the term of the prior patent. If letters patent for an invention, involving the use of an invention the subject of an existing patent, or for an improvement on an existing patent, be void in law, the author of such invention or improvement must wait until the expiration of the prior patent before procuring letters patent for his own invention and publishing it to the world, whereby he will run great risk of losing all reward, the prior patentee will be deprived of the advantage resulting from the extended use of his own invention during the residue of the term of his letters patent, and the public will run the risk of losing the invention altogether by the death of the party, or at all events will be deprived of the enjoyment of it for the time during which the invention is, so to speak, in abeyance (o). Many instances might be cited, in which prior

(m) *Ibid.* 108, and see *ante* 110, n. m.

(n) *Ante* 389.

(o) See in *Morgan v. Seaward*, where it is said that letters patent for an invention altogether

Argument for the plaintiff.

patents have been rendered many times more valuable before by reason of some subsequent improvement or addition which was the subject of other letters patent. A patent for improvement generally is valid (*p*). What difference can make, whether the thing improved upon be or be not itself subject of a patent? But this question has been expressly decided by Lord *Eldon*, L. C., who, on opposition at the seal, allowed letters patent for an improvement on an existing patent (*q*). Further, this objection has never been raised in the course of litigation on any patent, notwithstanding that in a great number of cases the patent in dispute was for an improvement on an existing patent (*r*); and such an objection, if all would be prejudicial to the prior patentee, the improver, and the public.

The reply.

Bompas, Serjt., in reply: The question of infringement is to be decided by the court, for the court were to be at liberty to draw the same inference as a jury. If the defendants used a substantial part for the purpose of evading the patent, that would undoubtedly be an infringement; but if the patent be for all stone coal, then there has been no infringement. The present case differs essentially from any that has been cited, as it is not the using of known substances in known manners. Here the thing is old—the materials, the manner of using, the result—there is no novelty, every thing takes place according to the ordinary method—the plaintiff has done nothing more than adopt Neilson's patent; he uses that which was known before in a manner known before, and for a purpose known before. No case has gone so far as to decide that such can be the subject-matter of letters patent.

The fifth issue is one partly of fact and partly of law. The plaintiff cannot have judgment *non obstante veredicto*. The citation must be considered as included in the letters patent, for the grant would there appear to be the using of hot blast with anthracite. Now, Neilson has a prior grant for using hot blast with all kinds of fuel; anthracite was a known fuel; how then can the plaintiff's patent be good for using hot blast to a particular purpose? Such a grant in effect gives the right of using the patent of another, but such a grant is clearly void in law; there cannot be two grants of the same thing to different persons. Although patents have been taken out in many instances for improvements on patents, a grant of using a patent for a

improvement might be considered as an exception to the rule, in the case of trade and general improvements, where an addition or improvement of such an invention would be made by one man during the continuance of the monopoly, without obliging the person making use of it to purchase the machine or invention from him. The general object of the doctrine mentioned is to the part of the

inventions, would obviously be highly prejudicial to the progress of invention. See in full note 4.3.

Watts v. Freeman, ante 51, and not in *ante* 51, post.

As in the cases of *Lewis v. Dorr*, *Watts v. Freeman*, cited *ante* in the judgment of *Parsons v. Carey*, 1 C. M. & R. 664.

icular purpose is not good. Without a patent the plaintiff H. T., 1842. could not have used the hot blast; the using it with a patent is as much an infringement as the using of it without a patent. The proviso means that the grant shall not interfere with any previous grant. No case has been cited in which the subsequent patent included the use of the former patent; for such second grant would of necessity be void. *Cur. adv. vult.*

Sir N. C. TINDAL, C. J.: This was an action on the case for *Judgment.* the infringement of a patent, granted to the plaintiff on the 28th June 13, 1842. of September, 1836, for an improvement in the manufacture of iron. The declaration was in the usual form, and the defendants pleaded thereto, first, that they were not guilty; secondly, that the plaintiff was not the first and true inventor of the said improvement. Upon each of which pleas issue was joined. Thirdly, after setting out at length the plaintiff's specification, the defendants pleaded, that the alleged improvement therein described was not a new manufacture, invented by the plaintiff, within the intent and meaning of the statute, as to the public use and exercise thereof in England; which allegation was traversed by the plaintiff in his replication. Fourthly, the defendants pleaded, that the nature of the plaintiff's invention, and the manner in which it was to be performed, was not particularly described or ascertained by the plaintiff in his specification; upon which plea issue was joined. And in their last plea the defendants, after referring to the plaintiff's specification before set out in the third plea, stated the grant of letters patent, dated the 11th of September, 1828, to one James Beaumont Neilson, for an improved application of air to produce heat in fires, forges, and furnaces, where bellows and other blowing apparatus were required; that Neilson's invention was the production and application of a hot air blast, and was in public use, with Neilson's license, in the smelting and manufacturing of iron from iron stone, and was the hot air blast in the plaintiff's specification mentioned; that the plaintiff could not use the hot air blast mentioned in his specification without Neilson's license; and that he had obtained such license before the grant of his letters patent; and that the using by the plaintiff of the hot air blast in the smelting of iron from iron stone, combined with anthracite or stone coal, as mentioned in his specification, was a using and imitating of Neilson's invention, whereby the plaintiff's patent was void. The plaintiff replied to this last plea, that Neilson's invention was not the same hot air blast; and that the machinery and apparatus adopted for the application thereof, mentioned and referred to

Judgment.

in the plaintiff's specification, was not nor was the using by the plaintiff of the invention as described in his specification a using and imitating of Neilson's invention, described in Neilson's specification: which allegation is traversed by the defendants in their rejoinder.

At the trial before me, the verdict was entered for the plaintiff on all the issues, subject to the opinion of the court upon the evidence given at the trial, as contained in a report agreed upon between the parties, the court being at liberty to draw the same inference from it as a jury might draw.

On the argument, it was contended by the defendants, that the verdict ought to be entered for them on each of the issues joined on the record; but as the main question between the parties turns on the third issue, which involves the question, whether the invention of the plaintiff is a manufacture within the intent and meaning of the statute of James; that is, whether it is or is not the subject-matter of a patent; and as the determination of this issue in favour of the one party or the other, will render the decision of the other issues free from difficulty, the simplest way will be, to apply ourselves in the first instance to that question.

The invention claimed is the use of anthracite and hot blast in combination, for the manufacture of iron.

Now, in order to determine whether the improvement described in the patent is or is not a manufacture within the statute, we must in the first place ascertain precisely what is the invention claimed by the plaintiff; and then by the application of some principles admitted and acknowledged in the application of the law relating to patents, and by the authority of decided cases, determine the question in dispute between the parties. The plaintiff describes the object of his invention to be, the application of anthracite or stone coal combined with hot air blast in the smelting or manufacture of iron from iron stone, mine, or ore, and states distinctly and unequivocally, at the end of his specification, that he does not claim the use of a hot air blast separately as of his invention, when uncombined with the application of anthracite or stone coal. Nor does he claim the application of anthracite, or stone coal, when uncombined with the using of hot air blast; but what he claims as his invention is, the application of anthracite or stone coal and culm, combined with the using of hot air blast, in the smelting and manufacture of iron from iron stone, mine, or ore. And the question, therefore, becomes this—whether, admitting the using of the hot air blast to have been known before in the manufacture of iron with bituminous coal, and the use of anthracite, or stone coal, to have been known before in the manufacture of iron with cold blast, but that the combination of the two together (the hot blast and the anthracite) were not known to be combined before in the manufacture of iron, whether such combination can be the subject of a patent.

are of opinion, that if the result produced by such a combination is either a new article, or a better article, or a cheaper article to the public, than that produced before by the old method, that such combination is an invention or manufacture within the meaning of the statute, and may well become the subject of a patent, if the result be a new, or a better, or a cheaper article.

(b). Such an assumed state of facts falls clearly within the principle exemplified by *Abbott, C. J. (c)*, where he is determined that what is or what is not the subject of a patent, namely, it perhaps, extend to a new process to be carried on by implements or elements acting upon known substances, ultimately producing some other known substance, but producing it in a cheaper or more expeditious manner, or a better or more useful kind. And it falls also within the doctrine laid down by Lord *Eldon (d)*, that there may be a valid patent for a combination of materials previously in use for the same purpose, or even for a new method of applying such materials. A specification must clearly express, that it is in respect of a new combination or application.

There are numerous instances of patents which have been granted, where the invention consisted in no more than in the use of a known thing, in a known manner, to produce known effects, a subject-matter already known, and acting with them in a manner known, and producing effects already known, but producing those effects so as to be more economically or beneficially than before. It will be sufficient to refer to a few instances, some of which patents have failed on other grounds, one on the ground that the invention itself was not the subject-matter of a patent (e).

may first instance Hall's patent, for applying the flame of a single off the superfluous fibres of lace; where a flame of lace had been used before for that same purpose (f). Derosne's

as per *Buller, J.*, in *R. v. Arkwright*, and note e.

The King v. Wheeler, 2 B. & Ald. 349.

Hill v. Thompson, ante 237.

may be observed, that no case is reported in any of the books in which a patent failed, simply on the ground of the invention being the subject-matter of letters patent; or ground, as want of novelty, or defective specification, having been the real cause of failure. In *Newton's case (Brunton v. Hawkes, 4 B. & Ald. 491)*, a careful examination of the judgments of the learned judges will show, that the real objection was want of novelty, a particular defect of anchor having been made in the same manner. The dictum of the learned judge, that it could not be a patent for making in one piece what before had been in two pieces, had reference to the particular case, and was received and applied with great caution, as it is clear that cases may occur, in which the making in one piece, so as to avoid a defect, would be an essential and material improvement. Whether an improvement or not, appears to be the real question. See ante 74, n.

In *Saunders' or the button case (Saunders v. Aston, 3 B. & Ad. 881)*, the real invention was the substitution of a flexible shank, which was old, by the special aid of a toothed collet; had this been properly claimed, the patent would have been good.

In *Kay's case (Kay v. Marshall, 5 Bing. N. C. 491)*, the real defect was not in the subject-matter, but in the subject-matter as disclosed on the face of the letters patent and in the specification. The result of the invention was, the introduction of a new mode of spinning, which has since been applied to many other manufactures, and the placing the flax on a similar footing with the cotton manufacture. No one can doubt inventions such as those being the subject-matter of letters patent; but Kay, and his great forerunner Arkwright, in the other branch of the manufactures of the country, both failed to secure to themselves the full benefit of their industry and ingenuity from the same cause, namely, a defective specification. See ante 74, n.

(f) See ante 97. The particular fact here mentioned, does not appear in the evidence on the trial for the infringement of this patent (*Hall v. Boot*, ante 100—103); but it has been repeatedly

Judgment.

patent, in which the invention consisted in filtering the syrup of sugar through a filter, to act with animal charcoal, and charcoal from bituminous schistus, where charcoal had been used before in the filtering of almost every other liquor except the syrup of sugar (*g*). Hill's patent, above referred to, for improvements in the smelting and working of iron; there the invention consisted only in the use and application of the slags or cinders thrown off by the operation of smelting, which had been previously considered useless for the production of good and serviceable metal, by the admixture of mine rubbish. Again, Daniell's patent was taken out for improvements in dressing woollen cloth, where the invention consisted in immersing a roll of cloth, manufactured in the usual manner, into hot water (*h*).

According to the evidence, the yield is greater, the quality better, and the expense less.

The only question, therefore, that ought to be considered on the evidence is, was the iron produced by the combination of the hot blast and the anthracite a better or a cheaper article than was before produced from the combination of the hot blast and the bituminous coal; and was the combination, described in the specification, new as to the public use thereof in England. And, upon the first point, upon looking at the evidence in the cause, we think there is no doubt, that the result of the combination of the hot blast with the anthracite on the yield of the furnaces was more, the nature, properties, and quality of the iron better, and the expense of making the iron less, than it was under the former process, by means of the combination of the hot blast with the bituminous coal.

It is to be observed, that no evidence was produced on the part of the defendants, to meet that given by the plaintiff on these grounds; and that it was a necessary consequence, from the proof in the cause, that from the substitution of the anthracite coal, in whole or in part, instead of or in the place of bituminous coal, the manufacture of the iron should be obtained at less expense (*i*).

It was objected, in the course of the argument, that the quality or degree of invention was so small, that it could not become the subject-matter of a patent; that a person who could procure a license to use the hot air blast under Neilson's patent, had a full right to apply that blast to coal of any nature whatever, whether bituminous or stone coal. But we think, if it were necessary to consider the labour, pains, and expense, incurred by the plaintiff, in bringing his discovery to perfection,

mentioned in argument in subsequent cases, as well as on the present occasion. See per Lord Abinger, C. B., in *Losh v. Hague*, ante 207. This fact was probably stated in the affidavits, on the motion for a new trial, on which occasion Lord Tenterden, C. J., is reported to have said, that no man could tell *a priori* what would be the effect on the article of a change from oil to gas.

(*g*) See ante 152.

(*h*) See ante 71, n. c, and *The King v. Daniell*, Godson on Pat. 274.

(*i*) The plaintiff's works being situate on the stone coal district, other species of coal was obtained at increased expense of carriage, or of carriage and coking. See ante 386.

that there is evidence in this cause, that the expense was considerable, and the experiments numerous. But in point of law, the labour of thought, or experiments, and the expenditure of money, are not the essential grounds of consideration on which the question, whether the invention is or is not the subject-matter of a patent, ought to depend. For if the invention be new and useful to the public, it is not material whether it be the result of long experiments and profound research, or whether by some sudden and lucky thought, or mere accidental discovery.

June 13, 1842.
The labour of thought, or cost of experiments, expended on an invention, not essential in point of law to the validity of letters patent.

The case of monopolies (*k*) states the law to be, that where a man, by his own charge or industry, or by his own wit or invention, brings a new trade into the realm, or any engine tending to the furtherance of a trade that never was used before, and that was for the good of the realm, that the king may grant him the monopoly of a patent for a reasonable time. If the combination now under consideration be, as we think it is, a manufacture within the statute of James, there was abundant evidence in the cause, that it had been the great object and desideratum, before the granting of the patent, to smelt iron stone by means of anthracite coal, and that it had never been done before; there was no evidence on the part of the defendants to meet that which the plaintiff brought forward. These considerations, therefore, enable us to direct, that the verdict ought to be entered for the plaintiff on the third issue; that it was a new manufacture—new as to the public use and exercise thereof within England and Wales.

On the same ground, also, the second issue is disposed of in favour of the plaintiff. No evidence was produced on the part of the defendants, to show any inventor earlier than the plaintiff; nor does the fact, that there was an earlier inventor, appear from the cross-examination of the plaintiff's witnesses.

As to the first issue, namely, whether the defendants have infringed the patent, we think it clearly appears on the evidence, that the defendants had used, either in part or in whole, the combination described in the specification of the plaintiff's patent. The plaintiff's evidence goes fully to show certain infringements, and that is not met by any explanation on the part of the defendants. Indeed, the defendants' case did not appear to rest on this point at the trial, so much as on the important question raised by them—whether the improvement described in the specification, was a manufacture within the statute of James.

Upon the fourth issue, which raised no more than the usual inquiry, whether the nature of the invention was sufficiently described in the specification, the usual evidence was given, that persons of competent skill and experience could, by following the directions, produce the manufacture described with success,

(*k*) See *ante* 6; and 11 Co. Rep. 84; Noy 178.

Judgment.

and the evidence was entirely unopposed; upon this issue also the verdict ought to be entered for the plaintiff.

With respect, however, to the issue raised in the rejoinder in the plaintiff's replication to the fifth plea, we are of opinion, that taking the whole evidence brought forward by the plaintiff, it is impossible to perceive any substantial or real distinction between the hot air blast and the machinery and apparatus described in Neilson's specification, from that described and referred to in the plaintiff's—or to say, that the using by the plaintiff of the invention described in his specification was any other than a using and imitating of the invention described in Neilson's specification (*l*). The plaintiff, indeed, worked by license under Neilson's patent at the time of his discovery. On this fifth issue, therefore, we think the verdict should be entered for the defendants. Then arises the question, whether the plaintiff is, or is not, entitled to the judgment, notwithstanding the verdict on this fifth issue; on which point, the argument on the part of the defendants is, that the taking out a patent for an invention, which invention cannot be used or enjoyed by the public except by means of the former invention of another person, which former invention is itself the subject-matter of a patent still in force, is void by law. Undoubtedly, if the second patent claims, as part of the invention described in it, that which had been the subject-matter of a patent then in force, it would be void, on the double ground that it claimed that which was not new (which indeed would equally be the case if the former patent had expired), and also that it would be an infringement of, and inconsistent with, a former grant of the king still in force, which latter consideration alone would make a new grant void (*m*). But in this case there is an express disclaimer of any part of the invention extending to the use of the hot air blast which was covered by Neilson's patent, the specification describing, that the application of the hot air blast was well understood and extensively applied in many places where ordinary fuel is employed. The validity, therefore, of the plaintiff's patent cannot be impeached on either of the grounds above adverted to. Unless, therefore, the grantee of the new letters patent is bound by law to specify whether such former invention, which is excepted, was so excepted on the ground of its being generally known and used by

Patent good although it requires the use of that to which another has an exclusive right, or that which is public, if that be not claimed in the specification.

(*l*) It should be borne in mind, that the trial at *nisi prius* was before, and the argument on the special case subsequent to, the proceedings establishing the validity of Neilson's patent. Neilson's invention consisted in applying hot air to furnaces, that air being heated in a vessel intermediate between the furnace and the blowing apparatus; the vessel described in Neilson's specification was abandoned as of no value in comparison with the series of pipes subsequently introduced, and which the plaintiff and Neilson's other licensees then used, and a main question in

Neilson's case was, whether the use of any vessel, and series of vessels, or receptacles, as a set of pipes, was protected by his patent, and the Court of Exchequer decided that it was. See *Neilson v. Harford & others*, ante 369.

(*m*) See "an act for avoiding second letters patent granted by the king" (6 H. 8, c. 15), whereby it was enacted, that in all cases of grants of second letters patent for the same thing, the determination of the former grant should be expressed. *Law & Practice*, tit. Statutes, and ante 397, n. 1.

blic, or on the ground that it was the subject of a patent *June 13, 1842.* cured the use of it to a former patentee, the new patent good. But that distinction is as much in the knowledge public as of the grantee of the patent. If indeed the new had been taken out for improvements or alterations in invention secured by a former patent, there, for obvious reason, greater particularity would be necessary to distinguish the new from the old. But the present specification expressly says, "the whole of the invention already well known to the public, and I combine it with something else."

It is further argued, that in point of law, no patent can be taken out which includes the subject-matter of a patent still existing or in force. No authority was cited to support this proposition, and the case which was before Lord Tenterden, and in which he held, that where an action was brought for an infringement of improvements in a former patent granted to another person, and still in force, that the plaintiff must produce the former patent and specification; that at least affords a strong presumption that the second patent was good (*n*). The case of *Wright v. Playne* (*o*) is a clear authority on the same point; and on reason and principle there appears to be no objection (*p*). The new patent, after the expiration of the old one, will be free from every objection, and whilst the former exists, the new patent can be legally used by the public by procuring a license from Neilson, or by purchasing the apparatus from him or some of his agents; and the probability of the refusal of a license to one applying for it, is so extremely remote, that it cannot be taken into consideration as a ground of legal objection.

On the whole, therefore, we think the verdict is to be entered in favor of the plaintiff on all the issues except the fifth; that the verdict is to be entered for the defendants on the fifth issue; but notwithstanding such verdict, the judgment must be given in favor of the plaintiff.

Judgment for the plaintiff.

ⁿ The case of *Lewis v. Davis*, 3 Car. & P. 502. 4 Ves. Jr. 130; 11 East, 101; Dav. Pat. See also

Fox, Ex parte.

Eldon, L. C.: "If the petitioners have introduced certain improvements upon an engine for which a patent has been granted, and those improvements could not be used without the original patent, at the end of fourteen years the petitioners may make use of a patent taken out upon their improvements; though before that period expired they should have no right to make use of the other's patent. At the end of that time, the public has a right between the patents." 1 Ves. & B. 67., & post. Preceding was an opposition to a patent by the great seal, on the ground that it was taken from an existing patent; the patent was

Many patents on which litigation has been commenced were open to the objection of being taken from an existing patent, but the question does not appear to have been made in any of

(*p*) For suppose a particular article, starch for instance, to be the subject of letters patent, and that all the starch in the country was patent starch; there are attached to the making and selling of that article certain exclusive privileges, but the individual who has purchased it of the patentee has a right to sell it again, and to use it at his will and pleasure; the exclusive privileges are, in respect of that particular portion of the article so sold, at an end, and do not pursue it through any subsequent stage of its use and existence, otherwise every purchaser of starch would be obliged, according to the terms of the letters patent, to have a license in writing, under the hand and seal of the patentee; the absurdity of which is manifest. Hence it is obvious, that if a person legally acquires, by license or purchase, title to that which is the subject of letters patent, he may use it or improve upon it in whatever manner he pleases; in the same manner as if dealing with property of any other kind.

In the Exchequer

PROTHEROE v. MAY AND OTHERS.

[5 Mee. & W. 675.]

The grant of an exclusive license to use a patent does not invalidate the patent itself, although the patent may be vested in twelve persons; and it is wholly immaterial to its validity, in what number of persons such a license is vested, whether exclusive or not.

Such a license would not be invalid, if the districts or district covered by the license included the whole extent of the patent.

By order of the Vice-Chancellor, the following case was sent for the opinion of this court:—

Letters patent were duly granted under the great seal of Great Britain, bearing date the 29th day of August, 1838, to Arthur Dunn, for his invention of certain improvements in the manufacture of soap.

The case then set forth the letters patent, which were in the usual form, and of which the following only is material to be stated:—"Provided nevertheless, and these our letters patent are upon this express condition, that if at any time hereafter these our letters patent, or the liberties and privileges hereby by us granted, shall become vested in or in trust for more than the number of twelve persons or their representatives at any one time as partners, dividing or entitled to divide the benefits or profits obtained by reason of these our letters patent (reckoning executors or administrators as and for the single person whom they represent, as to such interest as they are or shall be entitled to in right of such their testator or intestate), that then these our letters patent, and all liberties and advantages whatsoever hereby granted, shall utterly cease, determine, and become void, any thing hereinbefore contained to the contrary thereof in anywise notwithstanding: Provided, that nothing herein contained shall prevent the granting of licenses in such manner and for such consideration as they may by law be granted."

A proper and sufficient specification of the said patent invention was duly enrolled in the High Court of Chancery, within the time limited by the said letters patent for that purpose.

Before the month of July, 1839, and at the time of granting the license next after mentioned, the said letters patent, and the liberties and privileges thereby granted, became and were vested in twelve several persons, partners, dividing or entitled in their own rights respectively, and not by representation, to divide the benefits or profits obtained by reason of the said letters patent. On the 1st July, 1839, the said twelve patentees, or persons in whom the said letters patent were so vested as aforesaid, signed and executed an instrument in writing, whereby, after reciting that they had agreed with Samuel Guppy and Philip Protheroe to grant unto them an exclusive license for the use and exercise of the said invention within the city of Bristol, and at such other place or places within thirty-five miles therefrom, as

described on the map with a compass, having Bristol for its centre, as they should think proper, and in consideration thereof, the said Samuel Guppy and Philip Protheroe had agreed to be bound by such terms, restrictions, stipulations, and agreements hereinafter mentioned and expressed; it was by the said license witnessed, that in pursuance of the said agreement, and in consideration of the covenants, provisions, and agreements therein-after contained, they, the said twelve patentees or persons in whom the said letters patent, and the liberties and privileges thereof, were so vested as aforesaid, did give and grant unto the said Samuel Guppy and Philip Protheroe, and the survivor of them, during the remainder of the term of fourteen years mentioned in the said letters patent, and for which the said letters patent were granted, the full and free liberty, sole and exclusive license and authority, to and for them the said Samuel Guppy and Philip Protheroe, and the survivor of them, for their and his own use and benefit, subject to the provisoes and stipulations hereinafter contained, to use the said discovery or invention within the city of Bristol, and at such other place or places within thirty-five miles from the said city as aforesaid, as the said Samuel Guppy and Philip Protheroe, or the survivor of them, should think proper (a).

Under the said license, the said Philip Protheroe and Samuel Guppy have used and exercised the said patent invention within the city of Bristol, and such other places within thirty-five miles thereof as they have thought fit, and they have since assigned the said license, and the benefit thereof, to or in trust for a company or copartnership consisting of more than twelve persons, who are now using and exercising the same, and have duly paid the rents made payable by virtue of the said license.

On the 2d of July, 1839, the said twelve patentees or persons in whom the said letters patent and the liberties and privileges thereof were so vested as aforesaid, gave and granted twelve other similar exclusive licenses to use and exercise the said patent right and invention, in twelve several districts other than the said city of Bristol and places within thirty-five miles thereof, of which said twelve licenses eleven were granted severally to eleven individuals (that is to say, each to one distinct person), and the twelfth was granted to a certain partnership consisting of thirteen persons.

The districts covered by the licenses are parts of England only—they do not comprise the whole of England.

(a) Here followed the usual covenants by the licensees—to manufacture a certain quantity weekly, to pay the license dues, to deliver accounts of the quantities made, and penalty for non-compliance. Power on part of licensees to determine the license. Not to prejudice letters patent by any acts, but assist in supporting them.

To keep regular accounts, and proviso that no other licenses should be granted on more favourable terms. Covenant on the part of the grantors not to grant any other licenses within the same district, or themselves use the invention. Power of revocation on default. See as to the usual form of licenses, *Law & Practice*, Pr. F., XIX.

Special case.

The questions for the opinion of this court are :—

1st. Has the grant of the said first-mentioned exclusive license to the said Philip Protheroe and Samuel Guppy invalidated the letters patent of itself, without reference to the subsequent facts ?

2d. Has the assignment to, and vesting of, the said first-mentioned license in the said partnership of more than twelve persons, invalidated the letters patent of itself and without reference to the other facts stated ?

3d. Has the grant of the said twelve last-mentioned exclusive licenses, or of any and which of them, invalidated the said letters patent ?

4th. If the third question should be answered in the affirmative, would the result be the same if the last of the twelve licenses had been granted to a less number than twelve persons ?

5th. If all the grantees of all the licensees were to coalesce and become jointly interested in such licenses, would the letters patent be thereby invalidated, if not otherwise invalidated ?

6th. Would the letters patent, if not otherwise invalidated, have been so if the districts covered by the licenses had included the whole of England, Wales, and Berwick-upon-Tweed ?

7th. Would they have been so if such districts had included the whole of England, Wales, Berwick-upon-Tweed, and the Colonies ?

Roupell, for the plaintiff: The points for the consideration of the court are in substance two only—1st. Whether, under the present form in which patents are granted, as contrasted with the form in use before the year 1832, an exclusive license to use a patent invention can or cannot be legally granted, and so as not to invalidate the patent when the patent itself is invested in twelve persons. 2d. Whether an exclusive license, if granted, can be legally assigned so as to become vested in more than twelve persons without invalidating the patent.—He was proceeding to argue these points, when he was stopped by the court, who called upon

Rotch, for the defendants. [*Parke*, B.: Do you mean to contend that the license is to be considered as part of the patent? If not, how can it invalidate it?] That has been considered as doubtful, and is untouched by any decision. He intimated that the parties merely wished to have the opinion of the court.

The court expressed a decided opinion that an exclusive license was no more than a common license, and that it was wholly immaterial to the validity of the patent in what number of persons a license was vested, whether such license were an exclusive license or not; and they said, that the questions must all be answered in the negative except the fourth, which required no answer, not having arisen before the court.

following certificate was afterwards sent :—

have heard this case argued by counsel, and considered it, and are of opinion—

That the grant of the first-mentioned exclusive license to Philip Protheroe and Samuel Guppy did not invalidate the letters patent.

That the assignment to, and vesting of, the said first-mentioned license in the said partnership of more than twelve persons did not invalidate the letters patent.

That the grant of the said twelve last-mentioned exclusive licenses, nor of any of them, did not invalidate the said letters patent.

That if all the grantees of all the licenses were to become jointly interested in such licenses, the letters patent would not be thereby invalidated.

That the letters patent would not be invalidated if the licenses covered by the licenses had included the whole of Wales, and Berwick-upon-Tweed.

That they would not have been so if such districts had included the whole of England, Wales, Berwick-upon-Tweed, and the Colonies.

Dated this 20th day of November, 1839.

(Signed)

“ ABINGER.

“ J. PARKE.

“ J. GURNEY.

“ R. M. ROLFE.”

The limiting the interest in letters patent (ante 414), differs somewhat in form from the clause, limiting that interest to five persons, (Pr. F., XIII., n. n.); but under the above decision, considerable doubt is entertained whether a sole and exclusive license to a greater number of persons renders the letters patent void. See *Urban*, 536. The above case establishes, however, a clear distinction between an interest in a letters patent, and an interest in a sole letters patent. The grantee of a sole license has an equitable title, and the grantee or assignee of the letters patent; his legal title, however, is very defective; he cannot sue in his own name for the patent, he cannot enter a disclaimer, or a bill of alteration (unless indeed a very liberal interpretation should be put upon the words “otherwise”), nor can he avail himself of the provisions of the statute as to the extension. On these grounds it is not a license deed, which is to confer practically amounting to an assignment. The statute specially provide for the grantee or the letters patent doing all acts necessary to enable the grantees of the license to enjoy the advantages of the statute.

It has been decided under the old clause, that no action could be maintained upon a bond conditioned for the payment of a sum of money, on the formation of a company which should consist of four thousand shares, and be the assignees of certain letters patent, such a condition being illegal, *Duvergier v. Fellowes*, 2 M. & P. 384; in error, 10 B. & C. 826; and in the House of Lords, C. C. & F. 89. It has also been decided, that the above proviso is confined to assignments by act of the party, and not by operation of law; *Bloxam v. Elsee*, 6 B. & C. 169.

Questions of difficulty arise as to the assignment of shares in, or parts of, letters patent, and the partnerships thereby created by the participation in profits; for it is obvious that a share in letters patent can only be a share in the profits made by working the same; letters patent not being divisible into portions like an estate, and yielding no profit unless the invention be worked. Some of these consequences may be avoided by a license instead of an assignment; the rent or license dues being reserved by way of per centage on the gross amount of the sales, instead of by way of share in the profits, or per centage on the net returns. See *Elgie v. Webster*, 5 M. & W. 518; and *Ridgway v. Philip*, 1 Cr. M. & R.; 5 Tyr. 131.

The assignment of a bankrupt's effects will pass any letters patent which may be granted to

Re CUTLER'S PATENT.

Cor. Lord Cottenham, L. C.

April 18 & 19, 1839.

The Petition.

The proceedings in this case were on a petition to the Lord Chancellor to affix the great seal to certain letters patent, against which a caveat had been lodged. The petition and accompanying affidavits stated the following facts. The application of the petitioner for letters patent for "an improved method or methods of constructing chains for suspension bridges, cables, mining, and other purposes, and for an improved method or methods of making the bars, links, and bolts thereof;" the Attorney General (Sir J. Campbell) reported in due course in favour of the patent, there having been no opposition on a caveat upon which notice was given; the delivery of the privy seal bill, bearing date the 11th day of March, on the same day at the great seal patent office, and that in due course the patent would have been engrossed and sealed on the 12th. That on the 11th of March notice was received of a caveat having been entered on the 9th, whereby the patent was stopped, and on the 12th a petition was presented by Cutler, that the caveat might be discharged, and the letters patent sealed; but before this petition could be heard affidavits were filed on behalf of the opponent Haines, stating that he had invented a chain which he believed Cutler to have pirated, and to be attempting to obtain letters patent for the same. That at the hearing of this petition on the 25th of March, the Lord Chancellor ordered that the matters of the said petition should be referred to the Attorney General, to inquire and report whether the letters patent ought to issue; that all parties should be restrained from doing any act relating to the said invention until after the report of the Attorney General, which was to be made to the Lord Chancellor; and that if the Attorney General should report that the patent ought to issue, that the same should be sealed as of the 12th of March, but not to be sealed until further order; the question of costs reserved. That at the hearing before the

the bankrupt before he obtains his certificate. *Hess v. Stevenson*, 3 B. & P. 565.

See *Cartwright v. Amatt*, 2 B. & P. 43, as to the assignment of letters patent taking effect on the occurrence of a certain future event.

A doubt was casually expressed by Lord Thurlow (*ex parte O'Reilly*, 1 Ves. Jun. 129, & post 432), whether letters patent could be the subject of a trust; but the doubt appears to be without any foundation. Letters patent are constantly

the subject of trust. It has also been doubted whether letters patent on a secret trust for an alien enemy were valid; but any objection on this ground would appear to be confined to the remedy of such alien enemy on a contract, 6 T.R. 23; 2 Ves. & B. 323; 13 Ves. Jun. 71; 1 B. Moore, 133; 7 Taunt. 439; 4 Y. & C. 485.

See *ante* 291, as to question of estoppel and contracts in respect of letters patent voidable in law.

Attorney General on the 27th of March, it was agreed that each party should produce a model of his invention, and the Attorney General decided, and the opponents admitted, that there was no similarity between the inventions. That the opponents hereupon attacked the novelty of the invention, and a drawing was produced from a specification of a patent granted to Fussell and Douglas in 1799, but the Attorney General decided that the inventions were different, and that Cutler was entitled to have his patent allowed; he required, however, that an outline of the specification should be left with him, which was accordingly done on the 27th of March; and that the Attorney General required a fuller description as to part, so as to show more distinctly the invention claimed, and promised to report to the Lord Chancellor on receiving the order of reference. The fuller description required was supplied by certain drawings, which, together with the order of reference, were left with the Attorney General on the 28th, and Mr. Cutler left town, considering the matter settled. That on the 30th the opponents obtained the appointment of another hearing before the Attorney General, on statement that the drawing which had been exhibited as, and alleged to be, a correct representation of Messrs. Fussell and Douglas's invention was incorrect, and upon examination of the original specification it clearly appeared that the invention for which Cutler had applied was old. That Cutler on hearing of this had some models made according to the specification and drawings of Fussell and Douglas's patent, and requested the Attorney General to see these models before making his report; but this request being refused, notice was immediately given that application would be made to the Lord Chancellor for an order for a further hearing, and that the Attorney General should in the mean time withhold his report. That the Attorney General, however, on the 2d of April made his report, whereby he certified,—“that having examined all proper parties, and inspected and considered all necessary papers and documents relating to the matters in his lordship's order mentioned, he was of opinion that the patent ought not to issue, on the ground that the alleged inventions are not new and useful.” And he further certified, “that this was a different ground from that upon which the caveat was lodged against the said patent, and that it was not until the second meeting that the party objecting to the said patent was prepared to substantiate the said ground of objection thereto.”

The petition then stated, as exceptions to the above report, that the ground alleged therein not being before the Attorney General under the Chancellor's order of the 25th of March, as latter included in the caveat against the great seal being attached to the patent, the Attorney General was not authorized

to go into such foreign matter, or to adopt the proceedings he had adopted; that the Attorney General having admitted *ex parte* statements and evidence, the petitioner was entitled to have been allowed to disprove such statements and evidence; that the ground of the report, that the inventions were not new and useful, applied to only one of the four inventions; that the report was grounded on false and fraudulent drawings and representations; and that no disinterested person of science had been called in competent to assist the Attorney General in coming to a proper conclusion.

*Argument for
the petitioner.*

Wigram (*Girdlestone* and *Jenkins* with him) for the petitioner. This case comes before the court under circumstances which are certainly not of very frequent occurrence. Mr. Cutler had invented, as he says, a new and useful invention for making chains; that he had applied for a patent, and the application had regularly gone through all the offices preceding your lordship's office, and which came there with a view to your lordship's seal being affixed, and it would have been affixed on the 12th of March, had not, a few days before, on behalf of a person of the name of Haines, a caveat been lodged, which prevented the great seal from being affixed to the patent.

A petition was then presented, praying that the great seal might be put to the patent, on which your lordship thought, upon its coming before you, that the most convenient course was, that it should be referred to the Attorney General to represent to your lordship how the case stood. The case made by the respondents to that petition was, that the invention for which we were seeking to obtain a patent was an invention of their own, and that a communication having taken place between themselves and Mr. Cutler, he had thereby acquired the knowledge of their invention, and was about fraudulently to obtain a patent for that invention. It was quite open for them to suggest any thing as to the novelty or the utility, because that was the case they suggested. An application for a patent is not *ex debito justitiæ*, and the parties are at the discretion of those who advise the crown whether it should go on or not, and therefore the case cannot be put as one in which there was any infringement of the right between the parties, because, supposing all the world were willing that you should put your seal to the patent, if you are of opinion that it is not a proper patent, you would not do it. The parties went before the Attorney General, and your lordship made it part of the order, that if the report should be in favour of the patent, you would affix your seal to it, as upon an antecedent day to the order of the 12th of March, so as to prevent any evil arising from the intermediate discovery. The parties met before the Attorney General, and when they went there the only question

to be raised before the Attorney General was, whether what we A.D. 1839. called our invention was, as alleged by the respondents, the invention of Mr. Haines, who had lodged the caveat; the Attorney General as to that ground of objection, taken by Mr. Haines, reported that there was no foundation for it at all; consequently if it rested upon that alone, there would be no difficulty in the present case. But the case took a turn, which has involved Mr. Cutler in this difficulty. The parties appeared before the Attorney General, and it being a part of the order that the patent should be sealed as of an antecedent day, there was no object whatever for one party concealing from the other what his invention in truth was. It was then agreed between the parties, and this is sworn to by two witnesses, and not denied, that each should produce his own model for the inspection of the Attorney General, and if it turned out that Mr. Cutler's invention was not the invention of Mr. Haines, that the patent should go. That was a contract to which the Attorney General was no party, and neither he nor the parties therefore would be bound by that agreement; but that was the agreement sworn to between the parties, and it was understood that no further impediment should be thrown in the way of the patent being sealed, if it turned out not to be the same invention. Mr. Cutler did produce a model of his chain, and the other party produced a model of their chain, and the Attorney General was clearly of opinion that the two were in no respect similar, and he was also of opinion that Mr. Cutler's patent was a meritorious invention, and one which entitled him to a patent, and that the patent should go. The Attorney General did afterwards, in point of fact, prepare a report in our favour. It appears that Mr. Farey, the scientific gentleman who had acted on behalf of Mr. Haines, to explain to the Attorney General what the nature of Mr. Haines's invention was, on the Attorney General being of opinion that there was no similarity between the two, and that that appeared upon a comparison between them as *amicus curiæ*, stated that the invention was not new, and the Solicitor General said that he should take the opinion of the court on the present case, not as to whether Mr. Haines has a right to oppose this on the ground that it is a copy of his invention, but whether upon the mere ground of discretion in the crown, whether the court will or not consider this as a useful invention for which a patent should be granted; and if he is to advise the court on the case or give information, of course it is immaterial whether he is heard as counsel, or in any other way whatever. But what have the parties done? It is agreed, as sworn to by two witnesses, and not contradicted by any one, that it was agreed between these parties, that if Mr. Cutler's invention was not the same as Mr. Haines's, the patent should go. Mr. Farey tells the Attorney General that he knew

*Argument for
petitioner.*

of a patent granted to two persons of the name of Fussell and Douglas, in the year 1799, which had turned out to be a useless patent, and that although Mr. Cutler's patent bore no sort of resemblance to Mr. Haines's, it was the same thing as the patent granted in 1799 to Fussell and Douglas; and he then produced or made certain drawings, in which he informed the Attorney General of what Fussell and Douglas's invention was, and what their patent was for. The Attorney General, on the inspection and comparison of these drawings with Mr. Cutler's invention, was still of opinion that Mr. Cutler's invention was new, and useful, and original, and that a patent ought to be granted for it, and there was a report actually prepared by the Attorney General to your lordship in favour of Mr. Cutler's patent. This took place on the 27th of March, and the parties went away conceiving the case was closed. It appeared that Mr. Farey afterwards went to the patent office, and upon the inspection of the specification of Messrs. Fussell and Douglas, he wrote to the Attorney General informing him he had done so, and that upon a more close inspection and examination of the case than he had been able to give it before, it appeared to him that Cutler's invention was the same as Fussell and Douglas's, although it had not appeared to be so from that drawing on the 27th. That having been stated to the Attorney General, the parties met again by appointment before the Attorney General, but it happened then most unfortunately that Mr. Cutler, supposing all concluded, had gone away; but his solicitor and Mr. Carmichael attended for him, and endeavoured to satisfy the Attorney General that the two, in point of fact, were different, and that *prima facie* upon comparison the difference appeared to be perfectly clear. The report made by the Attorney General, therefore, as it now stands, is in these words: he reports on the 2d of April, "That he was of opinion that this petitioner's patent ought not to issue, on the ground that the alleged inventions of the petitioner are not new and useful." That wholly depends on the comparison of the two chains; and he further certifies, that "this was a different ground from that upon which the caveat was lodged against the said patent, and that it was not until a second meeting before him that the party objecting to the said patent was prepared to substantiate the said grounds of objection thereto." There are several affidavits of scientific men, and it will appear that the Attorney General fell into the mistake by a comparison of the drawings, the two models of the two inventions showing them to be most essentially distinct from each other, and further that the invention is obviously one of a very ingenious kind, and likely to be of great public utility; at all events, where an invention is new, and there is the strong opinion of scientific men that it will be useful, and be found of great use in practice, the seal will not be refused to

a patent because some one is found to say that it will not turn A.D. 1839. out to be useful, though it is new. * * (a)

The attention of the Attorney General could not have been sufficiently called to that part of the case; he considered there was nothing in that part of the case which had not been examined before, and therefore that he might at once dispose of the whole case. If a person obtains a patent that is too large, and in part is not new, then the patent is void; but if any application be made to the crown for a patent for an invention of which part is only new, there is nothing to prevent the crown from saying, that it will grant a patent for that part which is new. This is not a case of a patent granted, but to be granted. The Attorney General required to be produced before him a sort of a description of the two things, and a description was sent him beforehand by a very eminent counsel, and the Attorney General wrote at the foot of the paper, that the party was entitled to the patent as soon as the order of reference was brought him; the Attorney General afterwards unfortunately changed his opinion, and the case now comes before the court on the point, as to whether the Attorney General was right or not in making such a report. [Lord Cottenham, L.C.: For what do you claim the invention?] We state that in the specification. [Lord Cottenham, L.C.: That is the way in which you describe it, but you must show your title by showing what the invention is.] The application for a patent is on two grounds—first, for an improved method of constructing chains; and, secondly, for an improved method of making the bars, links, and bolts, of which the chains are constructed; and to state in one word what is the improvement we claim in the construction of chains, it is the combination of what is termed the pummel and socket, with the pin passing through the whole substance of the chain, so as to give the additional strength that is given by the combination of the two parts of the chain. The combination of the pummel and socket, we say, in all chains manufactured before these has not been that combination; the pummel and socket are altogether new in themselves, and there has never been in the making of them that which gives the strength and benefit resulting from the combination; moreover, we claim this as altogether new, the whole chain being constructed of wrought iron, instead of being constructed partly of wrought and partly of cast iron. With respect to the improved method of constructing the bars, links, and bolts, what we claim there is a method by which we make those links and bolts in moulds and frames different from any which have ever before

(a) It is unnecessary here to advert to the peculiar features of the invention, or to the points in which it differed from the invention of Fussell

and Douglas. These will sufficiently appear in the judgment of the Lord Chancellor. *Post* 426.

been invented on that subject; our models and frames have not been produced, and no question having been raised before the Attorney General on that part of the application, it was not considered necessary to produce them.

Argument in support of caveat.

Sir R. M. Rolfe, S. G.: Before proceeding to any observations on the nature of this invention, it will be necessary to call attention to a circumstance which will require your lordship's judgment before the party shall be called upon to go into the points of resisting the proposition that this is a new invention—namely, whether your lordship has any jurisdiction on the subject? I cannot say there is no jurisdiction, but I have in vain endeavoured to call to my recollection any case in which a party came to the great seal, as Mr. Cutler does, applying for a patent in the first instance—it is just the same thing as if he had never been before the Attorney General—nay, it is worse, because he has been before the Attorney General, and the Attorney General represents that there ought not to be a patent, and the same case now comes before your lordship by way of appeal from that decision. I can see no principle which can entitle this party to ask your lordship to decide against the Attorney General, that will not in every case where a patent is rejected by the Attorney General entitle the party to come and say the Attorney General has decided wrong. [Lord Cottenham, L. C.: I have all the authority here, as if it had come before me originally without objection. At the last moment the Lord Chancellor may refuse to affix the great seal. I sent it to the Attorney General before for my own information. I have all the authority for affixing the great seal.] In fact it is now substantially before your lordship in the same way, in point of substance, as if the Attorney General had said there ought to be a patent granted. [Lord Cottenham, L. C.: The question now before me is, whether it appears to me that there is sufficient reason for not obeying the direction I received from the crown for affixing the great seal to this patent? Do not let it be understood I exercise original jurisdiction over the matter.] The difficulty is this—the matter has once come before your lordship. You have a jurisdiction on the subject by virtue of an erroneous report of the Attorney General, that is, because the matter was not brought under his consideration. [Lord Cottenham, L. C.: I do not act on the Attorney General's report at all. That report is for the Secretary of State.] Your lordship acted on the seal bill of course. The question then is, as to what your lordship, as holding the great seal, should do on the facts of the case as they are now disclosed. Now, how does this matter come on? It came before your lordship on a petition that you should obey the privy seal, and affix the great seal to a patent. Your lordship has reason to doubt whether that course should be taken—whether, in fact, the crown has

not been ill advised—and therefore refers it to the Attorney General, just in the same way as if the great seal had been affixed, and some party had then applied by *scire facias* to have these letters patent repealed. Your lordship refers it to the Attorney General to see whether the patent ought to issue. That was the reference. The party opposing the issuing of the letters patent goes before the Attorney General, and contends that they ought not to issue because the invention is not new, and because it interferes, as he supposes (not knowing exactly what it is), with an invention of his own, and consequently, of course, cannot be new. He goes before the Attorney General and produces his invention, and Mr. Cutler produces his invention, and there is this advantage, which does not arise in the ordinary cases, that the parties go, and each one discloses his own invention—because Mr. Haines, not making for a patent for his own invention, does not care about making it public, and Mr. Cutler, having got the matter in such a state that his patent will bear date on an anterior day, will not be prejudiced by producing his invention—so that both parties produced their inventions. Mr. Haines produces his invention, which is not now in question, which it is necessary I should draw your lordship's attention to, just to show what that is. The Attorney General was of opinion that the inventions were substantially different, and that there was sufficient novelty, and that he would report in favour of the invention. The opponents at this time were but ill informed of the real nature of Fussell's invention; afterwards, in consequence of further information, another meeting was appointed, a scientific person attended on both sides, and the matter went on till the Attorney General came to the opinion, on looking more minutely into the matter, that there was no novelty or sufficient novelty in the invention of Mr. Cutler. I mention this in order to get rid of the impression that seems to have been created, that there had been some sort of *mala fides* on our part, because it was referred to the Attorney General to report what were the real merits of the invention. Suppose Mr. Farey's opinion was right, and suppose Mr. Cutler's was not, would it not have been monstrous to have let the Attorney General report to your lordship, that it was fit that a patent should issue only to put the parties to the expense of coming the next day for a *scire facias* to repeal it? It was the duty of the party, he means to question it, not only his obvious interest, but his duty towards the other party, to question it on that stage which could give rise to the least expense and inconvenience. The matter was brought before the Attorney General, and he came to the conclusion that he did not think Mr. Haines's invention interfered in point of novelty with Cutler's, yet that Fussell and Douglas's did, and therefore he reported to your lordship that no

Argument in support of caveat.

patent ought to issue. It was further discussed before the Attorney General, I believe upon the second ground, for the invention claimed consists of two distinct propositions, the one in the mode of putting together the chain, the other the mode of making the links of which the chain is composed, and it was contended before the Attorney General on the second ground, that there was ample reason for reporting against the patent, because every body had a perfect right under patents that were granted to stamp any thing out of wrought iron. Of course there could be no patent for that, it being well known that wrought iron must be stamped in this way to make any shape or machine of any piece of metal for whatever purpose used; it would be monstrous that there should be a patent granted for stamping a particular thing, the process of stamping bars and other things of wrought iron being a process perfectly well known, and for which a patent was granted twenty-five years ago. That being the report made by the Attorney General, the matter comes before your lordship. The Attorney General being of opinion the patent ought not to be sealed, the parties come before your lordship, and say your lordship is commanded by writ of privy seal to put the great seal to this patent; and now the judgment of the Attorney General is controverted, and the question is, whether, under the circumstances, novelty is made out so as to justify the putting the great seal to this patent? This brings us to see what the real invention is of Fussell and Douglas. * * * I trust your lordship will think that this is not a fit case in which a patent should be granted, putting the parties to the inconvenience of instituting proceedings at law for the purpose of trying this question, but that your lordship will at once stop this, and say that it is not a fit subject for a patent.

Judgment.

Lord COTTENHAM, L. C. : The first proposition on this case was on the supposition, that those who now appear to resist the patent were the discoverers of an alleged invention similar to that for which a patent is now applied for; that, upon investigation, turns out to be not well founded, and is not now persevered in. In the course of discussing that matter between the parties, an objection is raised of a general nature, not growing out of the patent right, but a general objection to the patent, on two grounds—first, it does not exhibit any invention of any thing new; and, secondly, that what is proposed to be done would not be useful if introduced in practice. With regard to the second, it is not very easy sitting here to form any very conclusive opinion as to the usefulness, nor is it very necessary to inquire into that (particularly considering from whom the objection emanates), because if it be so perfectly useless as is represented, it will interfere with no man's rights, and it will be a mere dead letter, which no man would wish to

It is not always necessary to entertain the question of utility.

imitate if they had the right (b); but as far as I can come to any A.D. 1839.

conclusion from what is represented to me, I consider it is a considerable improvement. I may be mistaken; but certainly at present I am not satisfied it is not an improvement. With regard to the novelty, there really seems to me to be very little doubt or difficulty. It appears hitherto all chains have been formed on either one or two principles—either by one branch of the chain being linked into the next, and that is the ordinary most simple chain, or else the different branches are connected together by holes perforated through each and connected by a pin or screw; these appear to have been the two modes adopted in all manufactories of chains. The present party who applies for a patent says—I adopt bolts, and I unite the two, and the joint of my chain consists not only of that which constitutes a link, and therefore would be operative without a pin, but it is also constituted of a pin, and instead, therefore, of having a joint of one character on the other, my chain has two joints, one consisting of the link, the ordinary link, the other consisting of the pin. That was the view the Attorney General took of it when the case was first brought before him on the reference back by me, and he was of opinion there was that union and combination of the two principles which entitled the party to a patent for the alleged course he intended to pursue. It appears afterwards the Attorney General's opinion was altered, on the ground that he had it represented to him, and he considered the case as it was represented, that Fussell and Douglas's patent also had this application of the pin, or at least an application so similar to what is now proposed, as to deprive the party to the claim of novelty in the invention. I think the facts could not have been brought under the Attorney General's consideration as they have been brought under my consideration, because the sole similarity is in the term used. It is one of those many instances in which a conclusion arises from an inapt use of the same term. This thing may be called a pin, and may be correctly called a pin, and the other no doubt may be called a pin, but it is not because they go by the same name they are to be considered as identical—they are not used for the same purpose in any one respect. This of Fussell and Douglas is a variation from the original mode of making chains—namely, of one branch of chain being linked within and turning in the other. This section of the model of Mr. Cutler's chain, which

The identity of purpose, and not of name, is the criterion in judging of the similarity or dissimilarity of inventions.

(b) It may be a question whether letters patent for an invention so absolutely useless as here described would not be void in law, as prejudicial to the public, by reason of such a grant interfering with the progress of improvement, and rendering it necessary for any person who should discover the means of rendering the useless invention useful, to come to terms with the patentee of

such useless invention. See *Morgan v. Seaward*, ante 197. Letters patent for an invention absolutely useless would also be void, by reason of false suggestion. See ante 41; *Law & Practice*, *IND. tit. Uselessness*. But a case of the extreme nature here supposed is not likely to arise.

Judgment.

I have had given to me to-day, exhibits this in a very clear light. Take away one of the links, and see how this stands when the next link is taken away. Here is a solid substance—that is, solid except that it forms two parts, consisting entirely of the substance of one of the links, which next link is connected with it, and a joint is formed by being inserted within that link so perforated, and that is a link in the ordinary sense of the term, varied in form, but still it is the same; there is no joint constituted with any pin, but there is the introduction of one link into the substance of the other, and so they are connected, and that constitutes a joint. It is true, for a purpose which I shall presently explain, according to my view of the case, that in the more solid branch of the chain there is that which is called a pin going into the solid part, and projecting to a certain extent beyond the surface of it. To suppose that was inserted for the purpose of strengthening this part might be a rational conclusion, if it were not from the form and shape of the link which is to be connected with it. Which of the two is the strongest? And it would be the greatest absurdity in the world to strengthen that which is strong, and to leave unaided that which is entirely weak, as of course the chain would give way in the weakest part, if any part of the chain gave way. There cannot possibly be a doubt, if a weight were suspended on the chain beyond the power which it has the strength to bear, it would not be the solid substance which would give way, it would be that part which is perforated, and which is left comparatively weak; it cannot, therefore, possibly be for the purpose of adding strength, if it would add any strength, but the specification explains what it is. The specification says, that connexion—that pin, as it is called—shows the different parts coming together by means of wire pins cast in the iron; this substantial link consists of three parts, which are so connected, that when they have one in use they may maintain relative positions. Therefore it is the centre part, as connected by the pin at the two extremities, which enter into part of the exterior piece to keep it in its proper position, which exactly corresponds with the description here—pieces coming together by means of wire pins cast in the iron. This model does not represent this piece as perforating that central part, and therefore is not calculated to add to its strength, but is well calculated to maintain it in its position, because it does enter to a certain depth. That corresponds also with the specification in Fussell and Douglas's patent, where it describes it that R represents the different parts all completely put together, which are kept in that position by means of a screw placed in the centre, not by means of a pin at the two extremities, but by means of a screw placed in the centre, accurately describing the model put in by Mr. Cutler, but not at all accurately describing the model of the other

, because that does represent these pins as coming through A. D. 1839. entre, which is contrary to the plate in this book copied the specification, and also contrary to the plate I asked s in order that I might ascertain whether there was any ke, the plate being small in the book, and therefore not to ascertain what is represented. I have no difficulty ever in considering this as the accurate representation of late, as it is to be found in the specification in Fussell and glas's patent. Supposing it had gone through—not going gh tends more distinctly to prove it is not intended for purpose—but supposing it had gone through, it would only to strengthen the crank, and could not possibly be appli- to the purpose of forming the means of connecting the inks. It would have had nothing to do with that, because the whole substance in which the other link is to turn is ituted of the substantial part of the adjoining link. The oes not come in contact with the other link at all; the two are not connected together by it, and the utmost use it l be of, would be to strengthen the parts through which it s. On the other hand, when I look at the proposed chain, l it does in all respects adopt the two principles of the . It entirely adopts the principles of the two parts of the being linked together by their own substance, the best of which is, that there is no pin in this, and as long as two exterior parts are kept together and pressed on the part, there is perfect security, and nothing can give way se there is that pummel and socket, the two exterior ones sting far enough into the interior one to constitute a joint elf, and it furnishes a complete chain as far as the next xterior parts rest in the middle part. No doubt it would e so strong, because there would be a perforation going gh the whole, which would, of course, diminish from the gth of the otherwise solid substance that is supplied by —a pin which will act and constitute a proper joint, and itute a proper connexion if the two links of the pummel ocket were entirely out of the way—not, of course, of the strength, but operating as a joint, and as a means of con- ng the two parts together; this chain, therefore, has both iples in actual operation at every moment. It is either a depending on the pin or screw through, or it is a chain iding on the two parts of the chain being linked together, o constituting a chain on the original principle on which s were made, and that appears to me to be a combination ese two parts which, according to the opinion of the At- y General, formed, when he understood the matter as it does exist, a combination of principles which was properly lated to support a patent. The Attorney General was im- ed with the idea, that the pin used in Fussell and Douglas's

Judgment.

patent was on the same principle as that proposed to be used in the patent under consideration. On examination, it turns out, though it is called a pin, to be a piece of metal applied to a totally different purpose, not performing the same duties or applicable to the same object. If I find any part of that which is claimed sufficient to entitle the party to a patent, my opinion is, he is entitled to his patent for that application of the two principles constituting the joints of the chain as they are constituted. It is for him to consider to what extent he can make the claim, and in the present state of the matter, I have no reason to consider how far he may establish his patent beyond that which is directly under my consideration. The patent only gives him a right to that which he may choose to specify in the specification. I am of opinion this patent is good, and it is for him, of course, to consider whether he will carry it any further.

Wigram: I trust your lordship will think we ought to have the costs of the proceedings before the Attorney General—it was entirely a misrepresentation.

The *Lord Chancellor*: What jurisdiction have I to order costs?

Wigram: It was on our petition your lordship referred it to the Attorney General.

The *Lord Chancellor*: What is the course about costs in an application of this sort, Mr. Wigram? If you think you can show there is jurisdiction about costs, I will give them. My difficulty is, whether I have jurisdiction; I certainly should give the costs in the case, if I found it was within the province of the court to do so.

Wigram: Your lordship reserved the costs under the order which you made, and for that reason I should think your lordship would have the power of giving the costs; perhaps your lordship will allow us to mention it again.

Upon a subsequent hearing costs were allowed, and the letters patent were sealed as of the 12th of March (c).

(c) The power of the Chancellor to seal letters patent as of an earlier day, is controlled by statute 18 H. 6, c. 1, which enacts, that the date shall be the day of delivery of the king's warrant into chancery, and not before in anywise. Generally, letters patent bear date the day of sealing, unless there are some special grounds rendering it advisable that they should be dated as early as possible. See *Law & Practice*, tit. *Statutes*.

Caveats at the Great Seal.—Opposition to the sealing of letters patent, or at the great seal, is not very usual, this being the last stage at which a patent can be opposed. The granting of letters patent is usually opposed before the Attorney or Solicitor General on the report, or on the bill.

See *Law & Practice*, tits. *Caveat and Opposition*; the practice of opposing at the Privy Seal and Signet Offices being quite obsolete and abandoned. Cases sometimes occur in which the party has had no other opportunity of opposing, as where he has not received intelligence of the invention until it has been too late to oppose at any other stage. The following are the principal cases of petitions and caveats at the great seal:—

Ex parte Beck.

A caveat having been entered against putting the great seal to a patent for an invention which bore date 12th August, 1784, the Lord Chancellor Thurlow, upon hearing the petition, took some time to consider of it, and did not make his order for discharging the caveat until the 27th August.

did not enrol his specification until September, 1784, supposing the patent day the final order was made, but told the four months limited for the specification had elapsed.

He now petitioned the Lord Chancellor the patent, by making it bear date not instead of the 12th, but

Chancellor said, that although he was satisfied that the patentee was well acquainted with the patent, and that his case was a very strong one, he could not make such a use of the keeper of the great seal as to alter a degree upon an application of this kind. Upon the petitioner's applying to the officers might, under these circumstances, be induced to remit their fees, but he gave no relief upon the present petition. Ch. C., 578.

Ex parte Fox.

Persons having applied for a patent in relation to improvements in steam engines, entered under an existing patent, it was alleged the new patent was made with which it would interfere; the engineer stating that they were not in any respect resembling each

other. Romilly and Mr. Johnson in support of the other patentee.

Chancellor Eldon. I take it to be a matter of course, if he chooses, annex to his picture or a model descriptive of the specification must be in itself sufficient, and it will be bad. If the petitioners claim certain improvements upon an existing patent had been granted, and the improvements could not be used without the engine, at the end of fourteen years they could make use of a patent taken for improvements; though, before that time, they would have no right to make use of her's *substantum*. At the end of that time he has a choice between the patents. My opinion is, that this patent must go; and the affidavits, and see the parties' depositions.

Chancellor: This is a very difficult case with, but, upon not an inattentive view, I think I am not justified in withholding the patent. I do not like to give costs in this kind. I cannot say the jealousy side was unreasonable. 1 V. & B. 67.

Ex parte Heathcote in re Lacy.

An application, praying the court not to affix the great seal to a patent about to be made, by which he would be enabled to keep the specification secret for fifteen months, contrary to the policy of the law, and to the public.

Filed on behalf of Lacy, that no injustice was done to the public, and that the patentee was benefitted in a peculiar way, Lacy stated a machine for making French worst beautiful texture; and if the invention was secured to him by enabling him to lodge the specification under certain restrictions, this country would be enabled to rival in the sale of that article in the continent. At present, the French, by having materials and labour at a much cheaper

rate, could afford to undersell us considerably in that very important branch of their manufactures; but if this patent were granted, the saving with respect to labour would be more than equal to the difference in price of the materials. This was the principal object for wishing to keep the specification secret; for there was reason to apprehend, that if the particular description of the invention should be enrolled within the usual period, copies thereof would be obtained by foreign agents, and transmitted to foreign countries, the inhabitants of which would have the benefit of making use of the invention before his majesty's subjects could by law make use of the same; which would not only prevent the patentee from deriving the full advantage which he has reason to expect, but might also tend to diminish the benefit which the lace manufacturers of this country might otherwise derive therefrom. This was the ground upon which the legislature had thought proper to grant an act of parliament (53 Geo. 3, c. 179) to Mr. Lee, for securing his invention of preparing hemp and flax; by a proviso in the letters patent granted to him, the specification was to be kept secret for fifteen months; and the act directed that it should then be delivered to the Lord Chancellor, and be deposited with one of the masters in Chancery, and only inspected under certain restrictions during the first seven years of the letters patent, when it was to be enrolled for the benefit of the public. There was an affidavit by Lacy, stating his intention to apply for a similar act.

The Lord Chancellor Eldon said, that he could not put the great seal to a patent which gave the party fifteen months to make out his specification. In the present reign 20,000 patents had been granted, and this indulgence was extended only in two or three of them. Where the letters patent were for an invention to be used in England, Scotland, and Ireland, the usual period for enrolling the specification was six months; but where they were confined to England only, three or four months was the given time. Mr. Lee's case was a very peculiar one; it was for securing to the state, in a time of war, the benefit of a most important discovery. If Mr. Lacy could make out that the state was to be benefited by his invention in any peculiar way, as in the case of preparing hemp and flax, it might be doubtful whether he might not have a secret specification. His lordship was of opinion, however, that the legislature would pause a long time before they passed such an act in future; and he thought he might venture to say, that if Mr. Lacy were to apply for such an act, he would not procure it. The gentleman had said, that if this specification was not kept secret, the French might copy it; but his lordship could not establish a new principle merely to prevent the French from smuggling; neither could he put the great seal to a patent without seeing the specification; for it might turn out not to be worth a farthing, and then public genius would be discouraged merely for the benefit of the patentee. Many cases of this nature had occurred. The patent could not pass without the responsibility of the great seal; and if his lordship could bring himself to pass it, he might be called upon to give an account in parliament why he had extended this particular privilege to this individual contrary to the general policy of the law; and he could not, in justice to the king's subjects, affix the great seal to it, merely because it was a manufacture which other countries had in common with this.

Ex parte Henson in re Alcock.

This was an application on a caveat lodged by *Henson* against sealing letters patent to *Alcock* for improvements in machinery for making bobbin net lace.

Henson stated on affidavit his belief that the invention for which *Alcock* was soliciting letters patent was the deponent's invention, and which he had communicated in confidence to *Alcock*, who was his nephew.

It was argued on the part of *Alcock*, that *Henson* had no right to oppose at this stage, the time for opposing having gone by, the Attorney General having issued his bill; but

Lord Chancellor Brougham: "I cannot look at this case, and deny that they (the agents of *Henson*) have a strict right to be here, but it is a right which must be exercised very sparingly; and a discretion must necessarily be vested in the court. In the very peculiar circumstances of this case, I am disposed to give them the benefit of it, exercising it in a somewhat roundabout way by sending it to the Attorney General; but the very circumstance upon which that suspicion rests leads me to reserve the question of costs."

The case was then sent for the decision of the Attorney General, as to whether the inventions were the same, the Lord Chancellor observing, that it was in the nature of an inquiry before the Attorney General to assist the conscience of the court to see whether the sealing should go. It was then agreed that the Attorney General should report whether the patent should be granted, and that what was produced before him should be afterwards enrolled as the specification.

The Attorney General directed that the patent should be sealed, the improvements being dissimilar to those of *Henson*, and not infringing upon his inventions. The letters patent were sealed as of the day on which they came to the great seal. See 2 Newton's Lon. J. Conj. Ser. 32.

The following cases of opposition or caveats at the great seal to granting letters patent for other matters than new inventions, will illustrate the principles which have been adopted:—

Ex parte Daly.

This was a petition by Mr. Daly, manager and proprietor of the Theatre Royal, Dublin, to the Lord Chancellor of Ireland, praying him to withhold the great seal from a patent professing to have been granted by the crown under the powers vested in it by 26 Geo. 3, c. 57, and authorising Mr. Astley to have a theatre for exhibiting, during certain months in the year, feats of horsemanship and musical pieces, &c. Daly, in November, 1786, had obtained a patent for the Theatre Royal, and now opposed the passing of Astley's patent, on the ground of the great prejudice it would be to him after the expense he had been at in fitting up and supporting the theatre.

The Lord Chancellor: There are several stages of opposing the passing of patents.

The first is an application to the crown, while the granting of the patent is under the consideration of his majesty; upon such an application the crown would refer it to the great officers of state.

Secondly—When it comes to the privy seal, a like application may be made. The Lord Privy Seal has sometimes heard the matter himself, at other times he has referred it to a committee.

Thirdly—An application may be made to the great seal if the grant be illegal; or if be imposed on or deceived in such a case the Chancellor will withhold the seal. As to the matter of discretion whether ought or ought not to grant such a patent, nothing to do with that. The single question here is, whether these exhibitions of the subject of a patent within the act?

The objections made to this patent that it is illegal; or, secondly, that it is inconsistent with that granted to Daly—that it is more places of entertainment than one, will be divided. As to the first, the power to the crown to grant licenses for acting and keeping a theatre, and enacts others than those who are so licensed: interludes, tragedies, &c. But the power by the act to grant from time to time when and as often as it think fit, or letters patent to one or more persons for establishing and keeping one or more theatres so that if, instead of this, the grant to be of a theatre in as ample a manner as can there be any doubt but that it is good? Besides, there is a reservative patent of such as should be thereafter.

As to the second objection, that it is inconsistent with that granted to Daly—that it tends to diminish profits. Certainly, the more places of entertainment there are, it will make some difference. Perhaps it is better there should be one. It is said he has laid out money on having an exclusive patent. He had of the power of the crown to grant his own expressly reserved it. It is ought, as keeper of the king's coat of arms, to withhold the great seal. But the fact is this patent has been considered by the Lieutenant, so I do not think I have to do with that. If, indeed, the patent is illegal, it would be otherwise. I can see no objection. Vern. & Scriv. 499.

Ex parte O'Reilly.

In this case several caveats were entered against the great seal to letters patent for one year, authorizing the petitioner to use the house for the representation of Italian a new site, the old house having been pulled down. A great number of matters were discussed in the above case, before the Lord Thurlow, of which the following noticed: 1 Ves. Jun. 112:

The court refused to seal a patent for sending Italian operas, because the party carrying it on were by agreement with the Chamberlain, his executors and assigns, and the right to the patent was not connected with the property in the house.

It is not sufficient for the party applying to answer objections; he must lay a caveat.

Upon such application, the court will not seal a patent if the king is not deceived, nor his officers appointed; and will represent the king, but will not decide upon the merits of the various claimants.

The court will not seal a patent without putting the parties under some control, that is no caveat.

A patent in fee could not stand if a caveat was put in. A patent must be under proper reservation. Query, if a patent can be the subject of a caveat. See ante 418, n.

APPEAL FROM THE COURT OF SESSION (a).

JAMES BROWN (*Appellant*).ALEXANDER ANNANDALE & SON (*Respondents*).

[In the House of Lords, 24 & 25 February, 1842.]

This was an appeal from the first division of the Court of Session of Scotland, wherein the appellant complained of certain interlocutors pronounced under the following circumstances.

The appellant had obtained letters patent under the seal appointed by the Treaty of Union to be used in place of the great seal of Scotland, on a warrant under the sign manual, dated at St. James's, 26 Jan. 1836, and written to the seal registered and sealed at Edinburgh, 4 Feb. 1836, for "a certain improvement or certain improvements in the making or manufacturing of paper."

The public use of an invention in England prior to the date of letters patent for Scotland will invalidate such letters patent. *Semble* that the use of an invention in any of the colonies abroad would invalidate subsequent letters patent.

The specification was enrolled in the Chancery of Scotland, 4 Jan. 1836; but it is unnecessary, for the purposes of this report, to state any particulars of the invention.

The appellant (the pursuer in the court below) applied to the Court of Session, for suspension and interdict against the respondents (the defenders in the court below), in using certain machinery in the manufacture of paper. The respondents, in their answers to the note of suspension, denied that the machinery complained of was substantially the same as that described in the specification; and stated further, that the letters patent were void, because the alleged invention was not new, having been known, and publicly used and practised, both in England and Scotland, before the date of the patent.

The note of suspension and interdict was then merely passed to try the two questions, of the infringement, and the validity of the patent; the interdict was not pressed.

The appellant then instituted a summons for damages; in answer to which the defendants, as before, denied the infringement and the validity of the patent, on the grounds, 1. that the specification had not been enrolled in time (b); 2. that the invention was not new, having been known and publicly used both in England and Scotland prior to the patent.

(a) See a report of and observations on this case by Mr. Shearman, one of the respondents' agents, in *Newton's London Journal*, vol. xxi. C.S. See also the case of *Roebuck v. Stirling*, ante 45.

(b) It seems to have been admitted afterwards

that this specification was in time; the letters patent bear date on the day of sealing; and the time for specifying runs from, or exclusive of, that day. See ante 154, n. a.; also ante 430, n. c. as to the sealing as of an earlier day.

The above two processes having been (according to the practice of the Scotch courts) conjoined by interlocutor, a record was made up, and certain admissions and issues were agreed to.

Trial of the issues.

The issues came to be tried before Lord Mackenzie, one of the judges of the First Division of the Court of Session, and a jury, on the 14th and 15th days of May, 1841; and after the evidence on the pursuer's part had been concluded, the counsel for the defenders, in his address to the jury, stated, that it would be a part of the defenders' case to bring evidence to prove, *inter alia*, his averment on the record, that the invention specified by the pursuer had been publicly used in England before the date of his patent. Whereupon the admissibility of any such evidence was objected to by the pursuer's counsel, on the ground, that previous public use of the invention in England was not a ground for invalidating the pursuer's patent for Scotland. Lord Mackenzie overruled the objection, and decided that the evidence was admissible, as proving a ground of the invalidity of the patent. Against this judgment the counsel for the pursuer excepted, and lodged the following minute:—

"In respect of the opinion of the judge, that the use and practice averred as to England is competent in evidence to establish the first issue for the defenders, the pursuer admits that the verdict must, in point of fact, go on that first issue for the defenders, subject to exception to the opinion of the judge; the pursuer admitting that, if the above point of law is decided against him, the defenders are entitled to judgment in the cause."

Verdict.

Upon which the jury, "In respect of the matters proven before them, and of the minute of the counsel for the pursuer, find for the defenders on the first issue."

*Interlocutors,
8 July, 1841.*

The bill of exceptions came to be argued before their lordships of the First Division of the Court of Session, when, on the 8th of July, 1841, they pronounced the following interlocutor:—"The lords having heard counsel for the parties, disallow this bill of exceptions."

13 July, 1841.

The above decision in favour of the defenders was further carried out by the following additional interlocutor, or decree:—"The lords, in respect of the verdict of the jury in this cause, apply the same; and in the process of suspension and interdict, find the letters orderly proceeded, and dismiss the suspension; and in the action of declarator and damages, assoilzie the defenders from the conclusions of the summons, and decern; find the defenders entitled to expenses in the said conjoined actions, and remit the accounts when lodged to the auditor to tax and report."

Against the above two interlocutors the appellant (the pursuer below) brought the present appeal, praying that their lordships would be pleased to reverse, vary, or alter the same, or that

he might have such relief in the premises as to their lordships should seem meet, and for the two following reasons :—

1. There is no communication of rights under patents for inventions between the subjects of the two parts of the United Kingdom, and therefore the fact, that the improvement invented by the appellant in Scotland had been previously used in England, is not a ground in law for invalidating the patent for Scotland. The power of the crown in Scotland to grant exclusive privileges in respect of new inventions, is not given by any statute, but is founded on the immemorial usage of the crown, and the acquiescence of the nation. The attempts made to stretch this prerogative beyond its just limits, gave rise to the act of monopolies (*b*), which was declaratory of the principles of the common law, but left the prerogative of the crown untouched. The terms of the Scotch patents varied, some being for thirteen, others for twenty-one years; since the union, the term prescribed by the statute of monopolies for England has also been adopted for the Scotch patents (*c*), but there is nothing to limit it to this.

The grants, and the extent of the rights thereby conferred, are as distinct since the union as before, each being confined to its own country; and in this respect each part of the United Kingdom must be considered as a distinct, separate, and independent country and jurisdiction relatively to the other; for were it not so, but the kingdoms of England and Scotland are to be considered as but one country, all rights of patents for inventions should be co-extensive and equally effectual in both parts of the United Kingdom, a conclusion directly at variance with the acknowledged fact, since the patent for each country is strictly confined to that country; the freedom and intercourse of trade referred to in the articles of union do not extend to such rights as patents in either country. Patents for invention are not the only rights as to which a similar distinction exists respecting the rights of trade, since by the Scottish statute in favour of the royal burghs, the exclusive right of importing all foreign commodities for sale is conferred on the merchant-freemen of the royal burghs (*d*); and, according to the legal construction of that statute, the word foreign must apply to England. But the case as to the rights under letters patent for inventions is much stronger; for letters patent are, in their nature, matters of private right, constituted by grant *ex speciali gratia* on the part of the crown, and accordingly pass in Scotland under the seal ap-

(*b*) Acts of Charles I.; A.D. 1641; *ante* 33.

(*c*) *Ante* 34, *n*. See also Dallas's System of

styles; Edin. 1697.

(*d*) See Act, 1693, c. 12. It was accordingly adjudged in the case of the incorporate trades of Aberdeen against the Magistrates and Guildry,

that none but the guild brethren, as contradistinguished even from the trades of the borough, could import from England commodities which were either the native produce of that country, or of the colonies abroad. Mor. Dict. 1779.

Appellant's case. pointed by the 24th article of the Treaty of Union, to be kept and used in Scotland in all things relating to private rights or grants which have usually passed under the great seal of Scotland, and which only concern offices, grants, commissions, and private rights, within that kingdom. Further, letters patent are accompanied by no interchange of rights and privileges between the subjects of the two parts of the United Kingdom, but letters patent for one country are entirely confined thereto, and have no effect whatever in the other. But except in regard to such privileges and advantages of trade and commerce, as to which it was provided by the Treaty of Union that there should be full freedom and intercourse between the subjects of the United Kingdom, and for the regulation of which the laws were after the union to be the same in Scotland as in England, the 18th article of the Treaty of Union expressly declares, "that all other laws in use within the kingdom of Scotland do, after the union, remain in the same force as before (e)."

It would appear to follow, therefore, that all questions touching the validity of letters patent for Scotland, must be tried and determined according to the law of that country alone, and without reference to the legal condition of the subject-matter of such letters patent as to freedom or restriction in England, or any other country. The general requisites of the law of Scotland with respect to letters patent, are the same as of the law of England, except as regards the limits of their respective jurisdictions; but in applying those requisites, the matter must be considered solely with reference to the validity of letters patent in Scotland, and the effects of rights arising under them in that country, just as if England had no connexion with it.

2. Because, according to the just construction and true meaning of the letters patent granted to the appellant in Scotland, the requisite as to the novelty of the improvement is, that it was invented in Scotland by the appellant; and there is no condition, expressed or implied, that the mere circumstance of its having been previously known or used in England should infer a nullity of the patent.

The parts of the letters patent material to advert to, are the following. First, the recital of the petition, which, having stated the invention by the appellant, proceeded as follows: *Quam inventionem credit pro generali beneficio et commodo futuram esse, dictam inventionem novam esse et haud unquam ante hoc factitam aut usitatam fuisse per ullam aliam personam aut personas quascunque intra hæ regna (f) ut intelligit et credit.* Then fol-

(e) As to the meaning of the sixth article of the Treaty of Union, and this question generally, see ante 48, in note.

(f) It will be material to observe, that this form

of letters patent is a translation of the usual form for England; the words *hæ regna* being substituted for England, &c. at this place, but Scotland at others, as in the prayer in the next sentence.

the prayer for the grant of the letters patent: *Intra illam A.D. 1842. tem Regni nostri Uniti Magnæ Britanniae et Hiberniae Scotia vocatam pro termino quatuordecim annorum, secundum statum in eo casu factum et provisum.* The letters patent then proceed, in the usual form, to make the grant in the terms of the prayer: *Pro et durante termino annorum in præsentibus mentionis, Tenend. et habend, &c. pro et durante spatio quatuordecim annorum et usque ad plenum exitum et terminum eorum a data præsentium proxime et immediate insequent.* The letters patent also contain the prohibitory part, and the following among other provisoes: *Proviso semper, &c. dictam inventionem quoad licentiam ejus, in illa parte Regni nostri Uniti, Scotia vocata, non ut exercitum non esse novam inventionem vel a dicto Jacobo Brown ut prædicitur non esse inventam.*

The statute referred to in the petition is the English Statute of Monopolies (21 Jac. 1, c. 3); but no conclusion can be drawn from this circumstance inconsistent with the appellant's argument as to the foundation of the law of patents in Scotland; for in the dispositive or granting clause, as well as in the *tenendum*, the limitation is simply "*pro et durante spatio quatuordecim annorum a dato præsentium*," without any reference to the statute; whereas, in the form of letters patent for England, the *tenendum* contains there also the words "according to the statute in such cases made and provided" (g); whether with reference to the term years only, or generally to the authority on which the grant proceeds, may be doubted; but the latter construction, if the former one, affords a strong illustration of the difference between English and a Scotch patent, in regard to the foundation of the authority of the crown in the two cases (h).

The insertion of the words *intra hæc regna*, so far as applicable to other portions of the United Kingdom different from Scotland, though perfectly consistent with the fact as regards the knowledge and belief of the appellant at the time, is superfluous and immaterial. And it appears on searching the register of patents, granted for Scotland during the last two years, the pe-

g) See *Law and Practice*, Pr. F., XIII.

h) The force and import of these words, and the reason of their insertion in the English, and the omission in the Scotch letters patent, are, as is conceived, obvious. Before the statute of monopolies, the letters patent for England were granted for various terms, as of twenty-one years, and longer periods. The effect of the statute was to impose two following conditions—viz. that the grantee must be the true and first inventor, and that the term must not exceed fourteen years; and even this limited period Sir E. Coke appears to have considered as too long; ante 31, n. The letters patent subsequent to the statute consequently express, on the face of them, that the grant in both these respects is in accordance with the conditions imposed by the statute. The insertion of these words

has nothing whatever to do with the authority of the crown to make grants of this nature; such authority being part of the common law prerogative of the crown, declared and defined, but not created, by any statute. Prior to the union, the terms granted by the Scotch patents were for periods both longer and shorter than fourteen years, ante 34, n.; but since the union, the crown of England, in the exercise of the common law prerogative of the crown of Scotland, has adopted the same period of fourteen years for all its grants. The insertion of the words "according to the statute" in a petition presented by the petitioner, is not a circumstance on which any argument can be founded; but having been inserted in the petition, their appearance in the letters patent, which recite the petition, follows necessarily.

Appellant's case. tion states the invention not to have been used in Scotland, accordingly to the petitioner's knowledge and belief. And the proviso declares the grant to be void, in case it shall not be new within Scotland.

The court below has found, that the simple fact of the invention having been used before in England is sufficient in law to render the grant void; there is no statement as to any previous use in Scotland; had this existed, the question would have arisen, as to how far a misrepresentation in the petition in this particular would vitiate a grant, even supposing the invention to have been first introduced into Scotland by the party obtaining the grant (i). But this question does not arise.

The first condition of validity contained in the proviso is, that the said invention be new as to the public use and exercise thereof within that part of the United Kingdom called Scotland. Now without relying on the words "public use and exercise," it is clear that a thing invented in Scotland is a new invention in that country, although it had been previously invented and used in England. Under these circumstances, the invention in Scotland, though not absolutely with reference to all the world the first invention, yet with reference to Scotland is a new invention. And this completely satisfies the condition of the patent, which only requires that the invention should be a new invention in Scotland. This view is supported by the words of the statute of James, which declares, that patents shall be valid "of the sole working or making of any manner of new manufacture within this realm to the true and first inventor or inventors of such manufactures, which others at the time of making such letters patent and grant shall not use;" upon which it was held, in an early case (k), that letters patent for a thing practised in foreign parts, but granted to the person who introduced it into England, was valid.

The second requisite in the proviso is, that the said invention shall have been invented by the said Brown. But if truly invented by him, which fact is not brought into dispute, the fact of its having been previously invented by another in England, is clearly irrelevant. The same thing may have been found out by two persons in different countries simultaneously, or at different times, or an art formerly practised may have been lost, or a machine well known and used in another country wholly unknown here; surely any person who, by the application of the powers of his own mind, shall restore the one or invent the other, is not the less entitled to the character of an inventor, than he would have been if the art referred to had never been before known, or the machine used elsewhere. And the advantages resulting to the inhabitants of Scotland from the invention are not

(i) It is perfectly clear, that any statement false in fact, and which may form part of the consideration of the grant, is ground for avoiding a patent.

(k) *Edgebury v. Stephens*, ante 35; see also ante 126, n.

by the circumstance of its having been practised else- A.D. 1842.

ore.

art below were influenced in their decision by the case *k & Garbett v. Stirling & Son (l)*, for when the bill of came to be advised nothing more was said by any of , than that the case was a direct precedent, and that they id to decide accordingly. But that case differed from it in various essential particulars: for the evidence was to establish the fact of previous user in Scotland; and was strongly insisted on: also it was admitted that the had been practised by the patentees in secret many ore the patent, which circumstance was alone sufficient the patent. The House of Lords in that case did not on the one ground of the manufacture having been r known and practised in England (*m*).

spondents' case stated evidence of the prior public use Respondents' manufacture or machine in England, to be admissible to case. the invalidity of a patent in Scotland for the same ore or machine, on the following grounds:

pellant obtained his patent on the statement that he rst and true inventor of his alleged improvements, and same had not been used by any other person at the aking the letters patent (*n*).

otch statute (*o*) and the declaratory act of James (*p*) set-law as to the extent of the royal prerogative, and since of the two kingdoms the same law in regard to trade its has prevailed in both (*q*). For by the 6th article of y of Union it is expressly declared, "That all parts of d Kingdom for ever from and after the union shall have allowances, encouragements, and drawbacks, and be same prohibitions, restrictions, and regulations of trade, to the same customs and duties on import and export: the allowances, encouragements, and drawbacks, prohi-d restrictions and regulations of trade, and the customs s on import and export, settled in England when the mmences, shall, from and after the union, take place at the whole United Kingdom" (*r*). And by the 25th is enacted and declared, "that all laws and statutes kingdom, so far as they were contrary to the articles of

15. In the House of Lords, 27 May,

Interlocutor and Judgment, *ante* 48, ions thereon.

words "within these realms to the best ledge and belief" should follow the ke the statement of the petition per-t. The words, within these realms, regna, will appear hereafter to have aterial.

of Charles, A. D. 1641, *ante* 33.

(*p*) Statute of Monopolies, 21 Jac. 1, c. 3, *ante* 29.

(*q*) The practice as to Scotch patents has been guided by the practice as to English patents, and the same general principles of law are common to both realms. *Ante* 49.

(*r*) The latter part of this article would seem to explain the former, and to show that the regula-tions spoken of are of a fiscal nature. See *per* Lord Eldon, L.C., *ante* 48, n., as to the meaning of this article.

tion of these laws was no difficult matter, but the mode of administering them, or any change in the courts or peculiar by which they were administered, was a different and more matter. The nature of the land-rights of Scotland, and other obstacles, rendered an absolute union of the two next to impossible, and therefore the existence of se-judicatories and forms was indispensable. It might as said, that the law regarding the revenue and trade in the ngdoms was different, because there are separate courts hequer, and separate boards of excise and customs, and mps and taxes (y). The law relating to patents is only a d parcel of the law by which the trade of the United King-regulated, restrained, or encouraged, though the execution law may be by the means of different courts in the two f the island (z).

n invention be disclosed and made public in either part of nited Kingdom before both patents are sealed, neither is le. And accordingly, in practice, in order to enable a o obtain a patent for both parts of the kingdom before ecification becomes due in either, and the necessity for blication of the invention arises, the period of enrolling ecification is enlarged (a).

rther argument against Scotland being considered a foreign y to England in respect of patents, arises from the fact, patent would not be granted on the application of an in-l importing an invention from Scotland, not even from a er residing in Scotland; nor from a native of Scotland g in France, because he would not be a foreigner (b).

ly, the case of *Roebuck v. Stirling* is precisely in point; adverse judgment of any of the courts in either country en discovered (c). The practice of the legislature in ex-g letters patent for England for the renewed term to

he act of union declares, that the laws o the revenue and trade shall be the same. le XVIII., and *post* 453.

broughtout the whole of the respondents' t, it is essential to assume that the laws o patents are laws relating to trade, which citted they clearly are not in the sense in u term is used in the act of union. Every t may be bought and sold in some sense ct of trade. See *post* 453.

he time is enlarged from two months to the applicant declares it to be his inten-tain a patent for Scotland and Ireland as England; see *ante* 49; and *Law & Prac-F., II., n. A.* But the enrolment of the ion relates back to the date of the letters unless, therefore, the patents in all the be sealed on the same day, a prior pub-n law must exist in one or more of the ntries.

is would not appear in the petition or de-nor, consequently, in the letters patent. l statement in a petition, in the case of an invention, is, that in consequence of a cation from abroad, the party is in pos-

session of an invention, &c. See *Law & Prac-tice, Pr. F., I.* It may be questioned how far this form is correct; whether the words of the statute should not be strictly pursued.

(c) The respondents referred also to the *King v. Arkwright*, as a case in which evidence of the prior use of the machine in Scotland was given without objection; but the witness is there speaking of a variety of persons for whom he had made the machine in question; one of whom resided in Scotland. *Printed case*, 184; *Dav. Pat. C.* 134. This, therefore, is no authority.

The respondents referred also to Tennant's case, *ante* 125, in which one of the grounds of nonsuit was, that a chemist at Glasgow had suggested to the plaintiff a material part of the process.

Also to a case before Lord Mansfield, 25 April, 1776, of *Clark v. Laycock*. It was referred to in *Roebuck v. Stirling*, as a case of an English patent set aside on the evidence of Scotch witnesses, of the art having been practised in Scotland before the date of the patent. But it is extremely doubtful whether any such evidence was given in that case; and Mr. Shearman informs me, that from a subsequent perusal of the memorials, &c., in

Scotland by the same statute, there being no patent for Scotland, shows these countries to have been considered as one in respect of patents (*d*). The respondents appended to their case the judgments of the Court of Session in Roebuck's case (*e*).

Argument at
the hearing.

The case came on for argument in the House of Lords on Thursday, the 24th of February, 1842. Sir F. Pollock, A.G. and Biggs Andrews were counsel for the appellant; Kelly and Godson for the respondents. The Lord Chancellor Lyndhurst presided, assisted by Lords Brougham and Campbell.

Sir F. Pollock
for the appel-
lant.

The Attorney General having opened the appellant's case, by shortly stating the relative positions of the parties, and the nature of the contest between them, and having read from the printed case the issues and bill of exceptions, and the interlocutors on which the appeal arose, described the questions to be considered as simply whether, according to the laws of England, Scotland, and Ireland, as they now stand with regard to letters patent for inventions, the condition of novelty inserted in the grants extends beyond those parts of the United Kingdom respectively for which the grants were made, that is, whether it is not sufficient that the invention be new, *quoad* the country for which the grant is made.

The appellant contends that all grants of this kind proceed from the prerogative; that the statute of James regulating English patents was merely restrictive; that these, namely, English patents, as well as Scotch, derive their force solely from the prerogative, and not from any statute law. The only difference is, that in England there is a restraining statute—in Scotland there is none: each country is perfectly distinct. [Lord Brougham: But if before the statute a person represented to the crown that his invention was new, and not before used in these kingdoms, would not the grant have been equally void for misrepresentation?] That might be. The proviso making the patent void is the same in English and in the Irish patents as in the Scotch; the proviso regulates the extent of novelty in each, *mutatis mutandis*. It is no ground therefore to set aside the patent because it might have been used in some other part. I contend that the crown has the same right to grant patents in Scotland,

Roebuck's case in the Court of Session, Clark's case appears to have been cited for a different purpose, namely, to show that the action would lie, for in no part of the arguments upon the question of previous knowledge of the invention, was the slightest reference made to Clark's case; further, the respondents, Stirling and Son, never refer to it in their long and elaborate printed case, which is almost conclusive as to no such evidence having been given. In the course of the subsequent argument on the principal case, the Lord Chancellor Lyndhurst remarked, with respect to *Clark v. Laycock*, that the respondents were not justified in their statement of the effect of that case, there being nothing whatever to show that any evi-

dence of the use of the invention in Scotland was given. In the report of the case of *Clark v. Laycock*, in Morrison, 5045, nothing is said about the use of the invention; and the statement by the respondents is taken from Lord Hailes' decisions, and is said to have been a mistake of Lord Gardenston.

(*d*) See act extending Liardet's patent, *ante* 52. Supposing the communication of rights to be as contended for by the respondents, this and similar acts would deprive the people of Scotland of their vested rights to use an invention old in England, and be *pro tanto* a repeal of the Union. See act cited, *ante* 40, *n*.

(*e*) *Post* 451-2. These are a valuable addition to the report, *ante* 45.

it had before the union of the two kingdoms. The act of Sir F. Pollock James has no force whatever in Scotland. The crown may annex what conditions it pleases to its grants. They proceed solely from the prerogative. This prerogative is restrained in England, but it is not so in Scotland. [Lord Campbell: But it has always been considered that the sixth article of the union has made the law of Scotland the same as in England with reference to patents (f).] [Lord Brougham: All English cases are cited in Scotch patent cases, just as in England. The leading cases are cited as law there as much as here (g).] It is immaterial to me whether the statute of James applies or not. My argument is independent of that entirely. Assuming that to be so, still the crown of Scotland is in the same situation as respects granting patents as the crown of England. [The Lord Chancellor and Lord Brougham: Then you must contend, under the words of the proviso of the 6th section of the statute of James, that any person importing an invention into Scotland from England, is equally entitled to a patent as if he brought it from beyond seas.] I do; Scotland is a foreign country as to England for this purpose. [Lord Brougham: But do you consider a man has the same merit who brings over a foreign invention from beyond seas, as if he merely brought it across the Tweed—from Berwick, for instance?] I contend he is *quoad hoc* the inventor. He may either call himself the inventor, or he may state the fact of his having first introduced the invention.

The question, then, is this. Is not the crown entitled to grant a patent to an inventor, inventing or bringing an invention into Scotland, just the same as it can to an inventor in England? [Lord Brougham: The word "realm" in the statute of James, of course meant England at that time?] Yes, and still must mean the same; and if it is to be subsequently applied to Scotland, it must mean the realm of Scotland only. [Lord Brougham: That does not get rid of my difficulty. The petitioner states in his application, that his invention has not been before used *intra hæc regna* these kingdoms; he deceives the crown, and the grant would be void, independently of the statute (h).] [The Lord Chancellor: If the word realm means the United Kingdom, then the proviso in all English patents is illegal, and the consequence would be that every English patent would be void (i).] It would be so if such is the right construction. This shows, therefore, that each country must still be considered distinct for these purposes.

(f) It is respectfully submitted, that the sixth article of the Treaty of Union cannot have the effect here stated without a forced construction. See the 6th article, *post* 453. Further, that the law relating to patents is in no respect a law relating to the regulation of trade, within the meaning of that article, but that the peculiar words, allowances, encouragements, drawbacks, show the kind of regulations alluded to, namely, such as are the subject of navigation, excise, and customs law. That the prohibitions and restrictions granted by letters patent,

are of an entirely different nature, and derive their authority simply from the prerogative of the crown. See *ante* 48.

(g) The principles of the common law of the two ancient kingdoms, are unquestionably the same, *ante* 34, *n.*; there is no report of any case of patents in Scotland before the union, and but few have occurred; so that the cases decided in this country are the only cases which could be referred to.

(h) See *post* 453.

(i) See *post* 453.

Sir F. Pollock
for the appellant.

The court below has decided on the authority of *Roebuck v. Stirling*, and I admit, that if that decision, as mentioned in the printed cases, is to stand good, I have not another word to say in support of the present appeal. [The *Lord Chancellor*: There is no doubt, I suppose, that the invention was known in England before the date of the Scotch patent?] Oh, certainly. But the patentee *bond fide* took out his patent without knowing that. He was certainly the original inventor in Scotland—that was not disputed. Now there has been one uniform practice as to these matters ever since the union. There is no single case or trace of any thing on the point in any single book, English or Scotch. I undertake to speak positively as to English books. It is the opinion also of all Westminster Hall, without one dissentient voice (and several most eminent opinions have been taken), that looking at the language of the patent and of the statute, the condition of novelty only applies to the country for which the patent is granted. [The *Lord Chancellor*: The words of the proviso are decisive, if they are justified by the statute. They are the same, I suppose, in English and Irish patents. How is it in the West Indies?—a patent for the colonies, I mean.] [Lord *Campbell*: These are granted either by including them in the English patent, or by an order in council, extending the grant to certain colonies.] [The *Lord Chancellor*: How is the practice as to obtaining the Scotch patents? Are they obtained simultaneously, or afterwards?] In both ways; if the petition for the English states an intention to proceed for the Scotch and Irish patents, an extension of time to enrol the specification is given. [The *Lord Chancellor*: It seems to me to turn on the construction of the act. The crown can only grant a patent for what is new. The question is, where new?] You have evidence of the construction of the act in a long course of usage—I mean in the form of the proviso. [Lord *Campbell*: But how can you apply "*hæ regna*" in the recital to Scotland only?] That phrase might well be used, as the sovereign speaks in the plural, "*We, &c.*" [Lord *Brougham*: Was it not, do you think, "*hoc regnum*" before the union?] [The *Lord Chancellor*: It would be a monstrous thing if an invention, having full publicity in one part of the United Kingdom, could be made the subject of a patent in another part of it.] [Lord *Campbell*: If the crown were made aware of that fact, the grant would be refused.] Is a uniform practice of two hundred years to be upset by a legal decision? It will be very doubtful, if it be decided that the proviso is too limited, whether any patent is good. [The *Lord Chancellor*: It is a restrictive proviso less than the act authorized, no doubt, if we hold the act is to be so construed.] Then, if the proviso is bad, very great and serious doubts will arise if the patent is not bad altogether. The real question is, whether a practical construction of the act shall be set aside merely by a legal decision, or whether it should not be by an act of the legis-

lature, to be brought in for the express purpose, particularly *Sir F. Pollock* considering the vast interests grown up under the supposed state *for the appellant* of the law.

The decision upon which the court below proceeded, namely, the judgment in the House of Lords, in the case of *Roebuck v. Stirling*, in 1774, was on other grounds. [Lord Brougham: "As well as for the reasons therein," that is in the interlocutors.] No doubt; I must admit that refers to the reasons assigned in the interlocutor. I do not know if I may resort to the Scotch law of disuetude in this case. The statute has been entirely disused in this respect for above seventy years.

(The lords having consulted together, and referred to the printed cases in *Roebuck* and *Stirling*, and to the journals of the House of Lords)—[The *Lord Chancellor*: If we are to take that according to the letter, it is a distinct decision on the very point. It appears that Lord Mansfield was present as well as Lord Thurlow, when the judgment was given.] [Lord Brougham: It is quite clear that Lord Mansfield was there on purpose to take part in the case. He was not there on the day before, or on the day after.] The lords having again consulted—[The *Lord Chancellor*: I can readily understand why this form of letters patent was so framed before the union, and it has not been altered since, as it should have been (*k*).]

It is singular enough that the respondents in *Roebuck & Stirling* never put their case on this ground; so little did they expect to succeed on this point, that they scarcely mentioned it in their reasons. [Lord Campbell: It is raised distinctly (*l*).] [Lord Brougham: They having taken two points, the House says, we form our affirmation on that ground, as well as others.]

To what extent, then, are judgments of this house to be held binding? of course the house has the same power to review its judgments, as the courts below have. [The *Lord Chancellor*: They are binding on all inferior jurisdictions, but not absolutely binding on this house; but it would require strong reasons for us to set aside a decision on the very point.] The true rule I take to be, whether the decision is binding, beyond the strict necessity of the case. If it be found applicable on other grounds, it is open to question. The reasons assigned form no part of the judgment. The decision does not make the reasons assigned law. If the judgment be right, and clearly maintainable on other grounds, then it is open to me to re-argue the other points. The *Lord Chancellor*: This is part of the judgment of the house itself, the reason is made an essential part of the judgment. It is not the opinion of any single lord, on which he

(*k*) This, it is apprehended, applies to the form of the proviso, and not to the question suggested by Lord Brougham, *ante* 444, whether, before the

union, the petition used the words *hæc regnum*, and not *hæc regna*.

(*l*) See *ante* 45 and 47.

Sir F. Pollock
for the appellant.

founded his judgment, but of the whole house.] It is clear that there was prior usage there, by the party himself, in Scotland. That was quite a sufficient ground, therefore, to set aside the patent, and support the judgment. Another circumstance is, that no costs appear to be given. This is evidence that the decision was not given on the ground taken. I come back to the circumstance, that the practice has been uniform the other way, for above 200 years. This I contend is a practical construction of the act of parliament, during all that period. [Lord Campbell: An English patent might remain good with the old form of proviso, notwithstanding the union, although a Scotch patent might not be so. I don't mean to say that that is so. The crown would not then be deceived in its grant, and the patent void on that account.] No decision could be more inconvenient, than that an English patent would not be vitiated by prior use in Scotland, although a Scotch one would by prior use in England; this would not be putting the subjects of both countries on an equality. But the 6th article of the union does not, in fact, apply to this case. It has nothing on earth to do with monopolies for inventions. There was a patent law in Scotland long before. It was precisely the same as in England, no statute before or since the union in any way affecting it. [The Lord Chancellor: What is a form of a patent for a foreign communication? If an inventor stated he has imported an invention from England not before used in Scotland, would he get a patent for it?] I very much doubt if it appears on the face of the patent, that the invention was imported from abroad, if it would not be void. It was not formerly usual to state the fact of having imported it, but the applicant was called the inventor: I believe they have lately put in the petition, that he has brought the invention from abroad (m). [Lord Brougham (having read several passages from a Scotch patent for a foreign invention): This is very different to a patent for an original invention. It is not called his invention. It states the fact of his having received it from a certain foreigner residing abroad, and the proviso is different (n).] The question comes back to this. Has the crown power to grant a patent in this form or not? Did the crown lose by the act of union the power to grant a patent for one kingdom separately from another as before. If it be a good patent, the proviso makes it clear, that no prior usage except in Scotland will vacate it. Every patent both English and Scotch is in jeopardy if this is not right. At least it will be extremely

(m) In such a case the common statement in the petition is, that in consequence of a communication from abroad, the party is in possession of an invention for, &c.; but the more proper form would appear to be to pursue the words of the statute. See *Law & Practice*, Pr. F., I., and post.

(n) The Attorney General objected to this patent being referred to as any authority, as it had been granted since the present question was raised. There is little doubt, but that since the union the petitions, &c. for Scotch patents have been simply translations of the English, *mutatis mutandis*.

ble, whether a patent granted in a form not warranted A.D. 1842.

t, would not be set aside on *scire facias*.

Andrews followed on the same side. The respondents of right to control the prerogative. They say the patent have an additional, or more restrictive proviso. [The *incellor*: If the proviso is made more extensive than authorizes, it would no doubt be void by the statute.]

e bargains between the subject and the crown. [The *ancellor*: But the crown cannot make a bargain con-aw.] But if the crown had the power before the union,

of its prerogative, it is well established that such prero-ould not be taken away, except by express act of parlia-

The *Lord Chancellor*: No doubt the crown had much powers as respects letters patent formerly, before the of James took it away.] Yes. It was restrictive of ogative and declaratory. I am willing to take it upon

That effect is fairly to be put upon that restriction? By common law the crown clearly had a power to grant without restrictions (o). The statute limits the crown's

14 years, and confines it to new inventions. The ques-is, what is the meaning of the words, "which others at shall not use." Clearly others within the country for

e patent was to be granted. Within the realm, whether invented or brought into it, as in the case of *Edgebury ns* (p). In English patents, until very recently no dis-

was made between foreign and native inventions. The was equally called the inventor. And this was the cor-

of describing him: I doubt if any other be legal: in ,he could only be called the inventor(q). [Lord *Brougham*:

ou any case you know to be a foreign invention, where non form is used?] I have not; but I can find no other

any book on patents until the last edition of Mr. s, where, in a note at the second page of the appendix,

ie first time mentions a difference in the form.

statute refers only to England. There was no statute for l whatever. The act of 1641, which has been alluded to,

; apply to patents for inventions at all (r).

the general statement of the old law in from Noy's Reports, *ante* 6. The stand two new conditions: 1. that the grantee : true and first inventor, that is, that he ave learnt it from any source within the 1, 2. that the term must not exceed four-

e, 35.

form of petition, given in the older patents, after stating that the party has cc., further states, "That I am the true nventor thereof, and that the same has ade or used by any other person or per-soever, to the best of my knowledge and see Hands and Collier on Patents. of an imported invention, such a state-

ment, then sworn and now declared, is evidently false in fact, although not in law, the importer being in law the true and first inventor. But then the next words were useless as well as false. In modern practice this form has been modified; but the words of the statute have not been adopted. See *Law & Practice*, Pr. F., I.

(r) This statute, *ante* 33, appears to apply to all monopolies, and in subject-matter very much resembles the English statute. It is frequently referred to as declaratory of the law of patents in Scotland.

The learned counsel proceeded to refer to the case of Scotch patents granted between the time of the passing the English statute, 25 May, 1624, and the union, 1 May, 1707; see *ante* 34. This

*Biggs Andrews
for the appellant.*

It is admitted by the respondents, that before the union the crown had the power to have made this grant, and any conditions in the patent must necessarily have had reference to Scotland only. Then my argument is brought down to the consideration of the effect of the union. If it be conceded that the crown had the power before contended for, how is the prerogative taken away? It is a maxim, that it can only be taken away by express act of parliament. [Lord Brougham: That is stated too generally; take the case of the crown's prerogative of issuing writs to summon members to parliament at discretion, taken away by the effect of the union; and many other instances where the prerogative has been abridged inferentially.] [The Lord Chancellor: Read also the recitals of the act of James, which have especial reference to the prerogative, and speak of the inconvenience of it.] The effect of the union was merely to extend a mutuality of rights, to apply the statute of James to Scotland, as if it had been passed in Scotland before the union. In that view, "realm" will mean in England as before, and in Scotland, the realm of Scotland. [The Lord Chancellor: Suppose the invention is found not to be new in the colonies? It would be void, because they are part of the realm. All became one realm at the union; England, Scotland, and the Colonies.] [Lord Campbell: There is no separate patent for the colonies(?). It may be extended to the colonies as part of the realm.] The articles relied on are the 6th and 18th. By them it is argued, the two countries are to be made one as to patents. [Lord Brougham: There are other general words incorporating them into one.] If so, the great seal would be used for Scotch patents; if patents are public matters, then they clearly should pass under the great seal of England. If private, then they are expressly exempted by the 44th article from the operation of the act. They always have been sealed under the seal of Scotland. Therefore, they must be private matters. If not, one patent would run over both countries; but in practice, each is confined to the country it issues from. [The Lord Chancellor: But patent rights surely affect the public. They may be given for part, or for the whole realm. For England, for instance, without the colonies; or for Scotland, and not for England, and *vice versa*: they are distinct countries only as to the form and extent of the grant. The sealing has only reference to the form of the grant, and the officer who is to superintend the issuing of it.] [Lord Brougham: There might be a patent for one county only.]

part of the subject is left in much obscurity by both the appellant and respondents; and the case of the *Universities of Oxford and Cambridge v. Richardson*, 6 Ves. 659, before Lord Eldon, L. C., and his opinions, were never adverted to. See *ante* 48, n. The respondents in their case referred to the saving clause, 21 Jac. 1, c. 3, s. 10, of letters patent relating to printing, in expectation, as Mr.

Shearman informs me, of the above case before Lord Eldon being cited and relied on.

(s) That is to say, there is no separate great seal for the colonies. But there are several instances of distinct grants for the colonies; such patents pass as English patents under the great seal of the United Kingdom: one such was mentioned.

[The *Lord Chancellor*: If a patent were granted for England and Jamaica, how would it be if it was found not new in Jamaica; would it not be wholly void?] It would no doubt be wholly void. [The *Lord Chancellor*: If for England only, and it was not new in Jamaica, it would be equally void, because Jamaica is part of the realm. The question is, as to the power of the crown there, for it does not affect the words of the instrument. There is but one realm.] Then the word realm can only mean England: if not, the crown cannot grant a patent for England alone. The subjects of both countries would not be under one prohibition, &c., unless all patents extended to the whole realm. Every English patent would then be void. It cannot be one realm for one purpose, and not for another. [The *Lord Chancellor*: The party is at liberty to take out his patent for the whole realm, or for part of it, as he chooses; or he may dispense with part of his rights, or not enforce them. There is a dispensing power in the patentee.] [Lord *Brougham*: I know no reason why the crown could not grant a patent for all counties on this side the Trent. It would not be inconsistent with the statute so long as the invention was new all through the realm.] [Lord *Campbell*: The effect of the union is to extend that clause of the statute of James to Scotland.] So it might, and yet leave the crown in the same situation as to its Scotch subjects as it was in before towards its English. Thus there would be a perfect equality; where could be the hardship of this?

A patent or England rendered void by the previous use of the invention in any of the colonies.

The reason given by Lord Chief Justice Clerk, in *Roebuck and Stirling*, is, that where there was a new manufacture introduced into England it would be hard if that new manufacture could not be introduced at once into Scotland (*t*). Suppose a manufacture to have existed in England for a number of years, and that the Scottish public had been inattentive to it, or should know nothing of it until brought to their own doors by some individual having introduced it under a patent; is it fair that such persons should be told, you are not entitled to take out this patent? [Lord *Campbell*: The argument as to inconvenience is of no avail. The law may be with you, but no argument of inconvenience will help you.] Scotland is still a foreign country as to several matters; bills of exchange, for instance. As to the other authorities cited,—[The *Lord Chancellor*: I must say that the authorities cited by the respondents, when compared with the cases, are not borne out. There is nothing before the house to justify the respondents' statements (*u*). There is a total misapprehension both as to the cases of *Arkwright's* and

(*t*) See judgment, *post* 452.

(*u*) This is with reference to these being adduced as instances in which user in Scotland had been admitted as evidence of want of novelty in

England. *Ante* 441, *n. c.* Evidence of this kind has been repeatedly rejected by learned judges in this country, and the feeling of the profession has been unanimous against its admissibility. *Ante* 444.

*Biggs Andrews
for the appellant.*

Tennant's patents.] As to Roebuck and Stirling, it is quite clear that the house did not give judgment on this ground solely. [The *Lord Chancellor*: How can we aver against the very terms of the judgment itself, which is on record in that case? It is affirmed for one reason, as well as many reasons in the court below. Does not that terminate the question?—that decision has been pronounced, and it must be considered as binding upon us, unless you can show some very strong reasons indeed to the contrary; so strong as to satisfy us that the judgment was without foundation.] [Lord *Campbell*: The administration of the law in Scotland is different in form from England. The *ratio decidendi* is often given. If the House of Lords had repudiated that reason, it would have so appeared on the journals. On the contrary, the reason is approved of. It appears to me it would be attended with great inconvenience and some absurdity if it were otherwise.] The question is one of the greatest importance, as there are a great number of patents in the same unfortunate situation as the appellant's; and very strong opinions have been given by most eminent lawyers, that previous use in Scotland did not vitiate an English patent.

The Lords having consulted,—

The Lord Chancellor LYNDHURST: As far as I am concerned, I feel bound by that decision.

Judgment.

Lord BROUGHAM: The case of *Roebuck v. Stirling* appears to me perfectly to decide this case. The Court of Session had dismissed the suit, because it appeared that the process in question was known to and practised by different persons in England. This house adjudged, "That the interlocutors complained of be affirmed, for other reasons as well as the reasons specified therein." That implies that they concurred in the reasons thus given on the face of the interlocutor. What other reasons there may have been for the affirmance may be a question, but that reason was put forward by the court below as the ground of its decision, and being so put forward, was at all events one of the reasons for the affirmance of the judgment, with other reasons not stated by the house.

Lord CAMPBELL: There is an express decision applying in its terms to the present, just as much as if other reasons had not been introduced into the judgment of the house. That being an express decision upon the point in question, unless it is shown that the house was under some great mistake at the time, it must be considered as binding. I entirely concur in the decision; I think it is perfectly right; and if it had been *res integra*, I should have so decided, but especially after that decision; I perfectly concur in the affirmance of the judgment of the court below. My opinion is, that the law was quite correctly laid down by this house in the year 1774.

Lord BROUGHAM: When I stated that I proceeded on the

of this house in *Roebuck v. Stirling*, in the year 1774, I should have so decided without dissent; I entirely agree with my noble and learned lord if this had been *res integra*, I should have so de-

clared *Godson* for the respondents: Your lordships purport to affirm that judgment without hearing the respondents' counsel; we have to ask that it may be affirmed with costs, and not in the face of a judgment of this house.

Andrews: No argument was allowed in the court.

THE LORD CHANCELLOR: Here has been a decision of a majority, then of the whole court, as we think they ought to have decided; and therefore, I think the interlocutors must stand, and the appeal dismissed with costs.

Judgment accordingly.

of the Court of Session in Roebuck & Garbett v. Stirling & Son.

The following report of the judgments of the Court of Session, the appeal from which, ante 45, was appended to the case:—

JUDGMENT. A very momentous question occurs. Messrs. Roebuck and Company contend, although they were not the inventors of vitriol in lead vessels, still their patent is good to exclude others, because it is the first that practised that art in Scotland. Your lordships will not establish this prohibition maturely weighing its consequences, which seem exceedingly strange. I will now state what I mean by a few familiar examples. Stocking-loom in Scotland was established between thirty and forty years ago, according to Messrs. Roebuck and Company, who first established that stocking-loom; they have sought and obtained a patent, and prohibit all others in Scotland from establishing-loom in Scotland for fourteen years. The same would be the case as to the establishment of looms for silk, gauze, &c., so necessary in the present ruined state of linen manufactures. At this day we have velvet, or of any other manufacture in England, but not in Scotland, may be prohibited by patent for fourteen years, and new manufactures may be limited in Scotland to one man for the space of fourteen years. The only person in Scotland who has an Franklin's conductor for lightning is Dr. James Watt, that gentleman less benevolent than Watt might monopolize Dr. Franklin's invention for fourteen years. According to Watt's argument, he, as the first user, the inventor, may have a patent. Alas! the consequences were as frequent and as fatal in Virginia and Pennsylvania, no man could be a conductor without Dr. Lind's permission, not even Dr. Franklin himself. Take the invention of all, Dr. Irvine's method of

making salt water fresh; the process is simple; I may set it a going in Scotland, procure a patent, and prohibit all the inhabitants in Scotland from making salt water fresh. Again, there is in Edinburgh one Dallaway, who understands the method of enamelling on white iron, as practised at Birmingham. This art is not known in Scotland; it is a manufacture which would maintain thousands of hands; there can be no doubt of the *publicus usus et exercitium* of Dallaway, for I have seen his work; he may therefore obtain a valid patent to-morrow, and prevent the further introduction of the manufacture into Scotland for fourteen years. Many more examples might be given; but these may suffice to call your lordships' attention to this question,—whether that proposition can be true in law, whereof the consequences are obviously ruinous to the whole system of improvements in Scotland.

LORD GARDENSTON: Here is such an improvement as may be held an invention. There is nothing in the objection, that Roebuck and Company had privately carried on the trade for a number of years. The great difficulty is here, that the work in lead vessels had been carried on in England before the date of the patent. I should even doubt whether a patent might be granted to the person who first introduced any foreign invention into Britain. In matters of prerogative there is no distinction between England and Scotland. This distinction was taken away by the happy Union.

LORD KAIMES: This is a matter of considerable moment, because it concerns the good of the public and manufactures. The suspenders take the benefit both of the act of James the First, and of the general prerogative of all princes touching patents to new inventions. The radical point is, whether Messrs. Roebuck and Company have invented anything material? They certainly have. The use of lead vessels instead of glass is a matter of great moment. It has been said, that if the use of lead vessels was known in England before the date of the patent, Messrs. Roebuck and Company cannot support their patent; and to

illustrate this, the use of the stocking-loom, &c., has been mentioned. I am not sure that the king could not have granted a patent to the person who introduced the stocking-loom into Scotland. The cases, however, are different, for the stocking-loom was a public manufactory in England, to which every one had access; whereas they who made oil of vitriol in lead vessels at Bridgenorth or Bewdley, wrought privately, and work privately still.

LORD MONROD: The invention of Messrs. Roebuck and Company has proved useful: it has been found by this court that it is sufficiently published. I do not see the case of the Glasgow Merchants in so favourable a light, they had no certain knowledge of Roebuck's method; they sent one of their servants to corrupt the servants of Roebuck, and to discover the secret. Yet we must determine on grounds of law, not of favour. The first objection is, that there is no new discovery. *Ans.* Call it a discovery, or call it an improvement, it is so material as to entitle Messrs. Roebuck and Company to a reward. The second objection is, that the patentees had used this method for fourteen years before the date of the patent. *Ans.* 1st, In point of fact, it is long since they began to try it; but they did not till of late bring their trials to perfection: 2d, there was no occasion for applying to obtain a patent till there was a danger of discovery. The third objection is, that the discovery was not made by Roebuck and Company. I do not see any evidence of the art having been practised in Scotland. The charger's pretensions for discovery are ridiculous. It is acknowledged that there is no proof as to Steel. With respect to England, that the art was practised in England before the date of the patent, I am satisfied. It is probable that the discovery came from Roebuck himself by the treachery of one Fauconbridge, a discarded servant. (This is probable conjecture. The company gave Fauconbridge 10s. a-week, and, on his proving idle and drunkensome, dismissed him. It is likely that he told all he knew to the English artists, and that though he might not be able to explain the whole process, yet could tell enough to set chemists on the right scent; it was a poor saving to the company to suffer so dangerous a man as Fauconbridge to go at large, because he was not worth his wages.) However, I lay not stress on the circumstance of the discovery having come from Roebuck and Company. The question then comes to this,—will not Roebuck's patent be good, as he first brought the art into Scotland? Even in that view, as the introducer of this art, he is a great benefactor to the nation. The art was not publicly practised in England; its being secretly practised there will not affect Roebuck's patent. But I will suppose that the art was publicly practised in England; still I think it the same thing as if Roebuck had introduced it into Scotland from beyond seas. In the sense of law, England, with respect to us, is beyond seas. (There is a decision of the court, finding the contrary in express terms.) The Article of Union touches not this case. This is not a matter of trade, though it may be useful in trade. There is no communication of the law of patents between the two nations.

LORD COALSTON: I am clear that there is no

relevancy on the first and second objections; the sole difficulty lies in the third objection, that the art had been practised in England before the date of the patent. The question is, whether either as to the Stirlings or as to the Glasgow, it is not sufficient that others may have used it, whereas others did not use it. The patent is granted by the act of king James I., which says the act of king James I., which admits to be the law of Britain; but of its having been practised in England, it is sufficient to void the patent. I admit that the art was practised in foreign parts would be no objection. It is proved to have been practised at Bridgenorth and Bewdley; this I do not object in the words of the Article. Upon this clause of the Articles of Union, the statute of James I. is admitted to be the law of Britain. At the time of the Union, scarcely one manufacture properly belonged to Scotland. Most of the manufactures were then known in England. Was it to the statute of monopolies, or to the Act of Union, that any subject of Scotland was to be entitled for a patent respecting any manufacture in England but not in Scotland? This is to be determined upon the Articles of Union, there was any doubt as to this, the *incommodo* are unanswerable. As to the objection that this art is kept secret in England, that manufactures, especially in England, are kept secret as much as possible after a patent.

LORD JUSTICE CLERK: I would I could answer the first and second objections; but the third objection is, that the art was practised in England before the date of the patent. As to what is said, that this business is secret, it is notoriously known, that most valuable manufactures in England are conducted with patent or without, are conducted in the most imaginable secrecy. The words *publicum*, though in the patent, are not in the Act of Union. I should be sorry that we adopted this objection, holding that a patent would be established in Scotland for manufactures practised in England; this destroys the original inventor. The law of monopolies, with the exception of the first

LORD GARDENSTON: In the case of *Laycock*, decided in the King's Bench, a patent for both kingdoms; his presence upon the evidence of Scots where the art had been practised in Scotland before the date of Clark's patent.

LORD MONROD: I regard not the *incommodo*; we must judge according to the convenience. If there are such evils from patents, why, let the king grant a patent, or let the legislature regulate them as they understand me. I endeavoured to show the consequences that that could not be necessarily produced such effects.)

On the 4th of March, 1774, the Lord Justice Clerk proved, "That the method of making in vessels of lead, was practised in England before the date of Messrs. Roebuck and Company's patent; and, therefore, found the petitioners' petition to be void." *Act.*—J. M'LAURIN, A. M.—A. CROSBIE, H. DUNDAS. *RECORD CLERK.* DICK. KAIMES, PITFOUR,

Brown v. Annandale and Son.

t of Union—Scotland—5 Anne, c. 8.

following are the articles referred to in the case:—

VI.—“That all parts of the United Kingdom, from and after the union, shall have the same allowances, encouragements, and duties, and be under the same prohibitions, restrictions, and regulations of trade, and liable to the same customs and duties on import and export; and reserving the duties upon export of such particular commodities, from persons, the subjects of either kingdom, who shall be liberated and exempted by their privy seal, which after the union are to remain in full force to them in all respects, as before the union.”

And that, from and after the union, no goods carried into England shall be liable to duties either on the public or private law, than those duties to which the cattle of Ireland were or shall be liable within the said Kingdom.

And seeing by the laws of England, that rewards granted upon the exportation of victuals of grain, wherein oats grinded or unthreshed are not expressed; that from and after the union, the oats shall be sold at fifteen shillings per quarter, or under, there shall be paid for every quart of oatmeal exported in the terms of the law, and so long as rewards are granted for the export of other grains, and that the beer of Ireland have the same rewards as barley: and the importation of victual into Scotland, from any place beyond sea, would prove a disadvantage to tillage, therefore that the prohibition in force by the law of Scotland against the export of victuals from Ireland, or any other place into Scotland, do, after the union, have the same force as now it is, until more effectual ways be provided by the parliament of Great Britain for discouraging the import of the said victuals from beyond the sea.”

XVIII.—“That the laws concerning trade, customs, and such excises to be levied in Scotland, by virtue of this treaty to be the same in Scotland, from and after the union, as in England; and that all other laws in force in the kingdom of Scotland, do, after the union, notwithstanding thereof, remain in the same force as before (except such as are contrary to the provisions of this treaty), but alterable by the parliament of Great Britain; with this exception, that the laws which concern trade, policy and civil government, may be altered throughout the whole United Kingdom, that no alteration be made in laws which concern private right, except for evident utility of the subjects within Scotland.”

XXIV.—“That from and after the union, there shall be one great seal for the United Kingdom of Great Britain, which shall be different from the great seal now used in either kingdom, and that the quartering the arms, and the precedence of the lion king at arms of the kingdom of Scotland, as may best suit the

union, be left to her Majesty; and that in the meantime, the great seal of England be used as the great seal of the United Kingdom; and that the great seal of the United Kingdom be used for sealing writs to elect and summon the parliament of Great Britain, and for sealing all treaties with foreign princes and states, and all public acts, instruments, and orders of state, which concern the whole United Kingdom, and in all other matters relating to England, as the great seal of England is now used; and that a seal of Scotland after the union be always kept and made use of in all things relating to private rights or grants, which have usually passed the great seal of Scotland, and which only concerned offices, grants, commissions, and private rights, within that kingdom; and that, until such seal shall be appointed by her Majesty, the present great seal of Scotland shall be used for such purposes; and that the privy seal, signet, and seals of the Justiciary Court, quarter seal, and seals of court now used in Scotland, be continued; but that the said seals be altered and adapted to the state of the union, as her Majesty shall think fit; and the said seals, and all of them, and the keepers of them, shall be subject to such regulations as the parliament of Great Britain shall hereafter make; and that the crown, sceptre, and sword of state, the records of parliament, and all other records, rolls, and registers whatsoever, both public and private, general and particular, and warrants thereof, continue to be kept as they are within that part of the United Kingdom now called Scotland: and that they shall so remain in all time coming, notwithstanding the union.”

Article XXV.—“That all laws and statutes in either kingdom, so far as they are contrary to, or inconsistent with, the terms of these articles, or any of them, shall, from and after the union, cease and become void, and shall be so declared to be by the respective parliaments of the said kingdoms.”

Act of Union. Ireland. 40 G. 3, c. 67.—The same questions which arose in the principal case in reference to the Act of Union for Scotland may also arise under the 6th article of the Act of Union for Ireland, which enacts that it be the 6th article of union, that his Majesty's subjects in Great Britain and Ireland shall, from and after the 1st day of January, 1801, be entitled to the same privileges, and be on the same footing, as to encouragements and bounties on the like articles, being the growth, produce, or manufacture of either country, respectively, and generally in respect of trade and navigation in all ports and places in the United Kingdom and its dependencies: and that in all treaties made by his Majesty, his heirs and successors, with any foreign power, his Majesty's subjects of Ireland shall have the same privileges, and be on the same footing as his Majesty's subjects of Great Britain,” &c. &c. The article then goes on to declare, that prohibitions and bounties on the export of produce or manufactures reciprocally shall cease, and what produce or manufacture of either country shall be imported duty free, and to provide as to reciprocal countervailing duties and drawbacks on produce or manufactures of importation, as to exports through either country of home productions, and as to the duties on the import of foreign or colonial goods into either country. The following section also is important:—“And be it enacted, that the great seal of Ireland may, if his Majesty shall so think fit, after the union, be used in like manner as before the union, except where it is otherwise provided by the foregoing articles, within that part of the United

Kingdom called Ireland; and that his Majesty may, so long as he shall think fit, continue the privy council of Ireland to be his privy council for that part of the United Kingdom called Ireland.

Observations.—The confirmation by the House of Lords of the case of *Roebuck v. Stirling* (*ante* 45), decided in 1774, which, strange to say, appears entirely to have escaped the attention of the profession until the case of *Brown v. Annandale*, in 1841, has established a doctrine not only at variance with the uniform course of practice, but with the almost unanimous opinion of the profession. See *per* Sir F. Pollock, *ante* 444. But the consequences of this decision, and the intimations thrown out in the course of the argument, present many important considerations in reference to the law and practice of letters patent for inventions.

Their lordships have intimated that their judgments would have been the same had the case occurred now for the first time. Under these circumstances, it is important to point out the grounds which are relied upon, and it is somewhat remarkable that their lordships would appear to rely on different and independent grounds.

Lord Lyndhurst would appear to rest his judgment on the effect of the statute of James, in restraining generally the prerogative. That the common law prerogative of the crown, as to grants of this nature, was thereby limited and restrained absolutely and unconditionally, without reference to the place in which such grants were to be exercised; and that, consequently, the crown cannot now grant exclusive privileges by way of letters patent for any part of its dominions, unless the subject-matter of such grant be new in every part of the realm; that none of the colonies or possessions abroad are foreign parts from which an invention may be introduced into England, and become the subject of letters patent. The learned lord also rests his judgment on the inconvenience of a contrary decision, and suggests whether all letters patent granted with a proviso less restrictive in extent than is warranted by such a construction of the statute, are not void or voidable. *Ante* 447, 448, and 449.

Lord Brougham would appear to rest his judgment on the terms of the petition, in which the petitioner represents the invention to be new *intra hæc regna*, and that, consequently, the crown had been deceived by a false suggestion, which of necessity would vitiate the grant. *Ante* 443.

Lord Campbell appears to rest his judgment on the effect of the Act of Union. *Ante* 449.

It may be, as suggested by Lord Lyndhurst, extremely inconvenient, under the present facilities of intercourse, that an invention, having full publicity in one part of the United Kingdom, should become the subject-matter of a patent in some other part; but if policy dictates such a doctrine, it surely ought not to extend to the colonies and foreign possessions; and the intimation of that

learned lord as to the effect of a publication in any part of the realm, and the too limited form of the proviso, ought to lead to some legislative enactment. It may be doubted how far any proviso is material, and whether it may not be rejected as surplusage, but then there is the further question whether the letters patent having been granted on the representation or suggestion of the invention being new in a part of the realm, are not granted on an insufficient consideration.

It has been suggested above (*ante* 443, *n. f.*), that the 6th article of the Act of Union, when it speaks of prohibitions, restrictions, and regulations of trade, relates to such matters as are the subject of the customs, excise, and navigation laws, and not to the exclusive privileges granted by letters patent in respect of the working of manufactures which may themselves be the subject of such laws. The questions raised in the principal case under the Act of Union for Scotland, may also arise under the Act of Union for Ireland. The effect of the Acts of Union on the printing patents has been considered in several cases, and particularly by Lord Eldon, L. C. See *ante* 48, *n.* It has been said that the prerogative of the crown, as to the printing patents, was not affected by the Statute of Monopolies; but the terms of the Act of Union would, on the authority of Lord Campbell, establish a community of rights between the three countries. Lord Eldon, L. C., however, after reviewing several preceding cases of a similar kind, held that the Act of Union gave no authority to send Bibles printed in Scotland for sale to England, or *vice versa*, there being distinct patents for printing Bibles in the two countries. See *ante* 48, *n.*; and 6 Ves. Jun. 709.

It being however now established law, that the prior public use and exercise of an invention in one part of the United Kingdom will vitiate subsequent letters patent for any other part, it becomes important to consider the extent to which this principle is to be applied. It should be observed, that neither in *Roebuck's* nor in *Brown's* case was the grantee of the letters patent the true and first inventor in England; and it is apprehended that the above decision would not be held to apply to a case in which the true and first inventor is one part of the realm was the grantee of the letters patent in the other part: otherwise, unless the letters patent in England, Ireland, and Scotland, be sealed as of the same day, there will be a prior publication in law in one or more of the countries; for the specification which relates back to the date of the letters patent is a publication; though it may be doubted how far such publication is evidence of a public use and exercise. See in *Cornish v. Keene*, post 519.

It is obvious, that so long as the present practice of granting letters patent continues, very considerable intervals must in cases of opposition elapse between the sealing of the different patents; and that the patentee has no control over such delays.

WHITEHOUSE'S PATENT.

Letters patent, 26 February, 1825, to Cornelius Whitehouse, *Title.*
for certain improvements in manufacturing tubes for gas, and
other purposes.

I, the said Cornelius Whitehouse, do hereby declare that the *Specification.*
nature of my said invention, and the manner in which the same
is to be performed, are particularly described and ascertained in
and by the drawing hereunto annexed, and the following de-
scription thereof; that is to say:—My improvements in manu-
facturing tubes for gas and other purposes, consist in heating
the iron of which such tubes are to be made in a blast furnace,
and, immediately after withdrawing them from the furnace,
passing them through swages, or other such-like instruments, in
manner following. I prepare a piece of flat iron, commonly
called plough plate iron, of a suitable substance and width,
according to the intended calibre of the tube; this piece of flat
iron plate is prepared for welding by being bent up on the
sides, or, as it is commonly called, turned over, the edges meet-
ing or nearly so, and the piece assuming the form of a long
cylindrical tube. This tube is then put into a hollow fire
heated by a blast, and when the iron is upon the point of
fusion, it is to be drawn out of the furnace by means of a chain
attached to a draw-bench, and passed through a pair of dies of
the size required, by which means the edges of the iron will
become welded together.

The apparatus which I employ for this purpose is shown in
the drawing at Fig. 1 (*a*), which is a side view of the furnace *a*, and
of the draw-bench *b*, with its spur-wheel *c*, which may be put
in operation by a hand-winch, or by attaching its axle to the
moving part of a steam engine; *d* is a screw press in which the
dies are placed for swaging and uniting the edges of the iron
tube *e*, as it passes through. A front view of this screw press,
with its dies, is shown at Fig. 2, and one of the dies removed
from the press is shown at Fig. 3. The iron tube *e*, having
been heated to the point of fusion in the blast furnace *a*, is
drawn out by the chain of the draw-bench, and the screw of the
press *d* being turned so as to bring the dies to their proper
point of bearing, the two edges of the iron become pressed
together, and a perfect welding of the tube is effected. The
screw-clamp or other fastening, *f*, by which the end of the tube
is held and attached to the chain, is now opened, and the tube
removed; the reverse end of the tube is then grasped by it,
and that part which has not been welded is introduced into the
furnace, and after being heated is drawn through the dies and
welded in the manner above described.

(*a*) See the Repy. of Arts, vol. 1, N. S., for a plate of the drawings accompanying the specification
here referred to.

Specification.

The process of welding these tubes may be performed without the screw press and dies above described. A pair of pincers, as shown at Fig. 4, may be employed instead, having a hole for the tube to pass through similar to the dies: one arm and chap of these pincers is shown at Fig. 5, for the purpose of exhibiting the conical figure of the hole which the tube is to pass through. As the tube *e* is drawing out of the furnace by the chain of the draw-bench, a workman brings the pincers and takes hold of the tube, resting the pincers against the standard *d* as a steadying place, and as the tube passes through the hole of the pincers the welding of the edges of the iron is effected.

Claim.

I have thus described the modes which I have employed and found fully to answer the purpose of welding tubes of iron; but I do not confine myself to the employment of this precise construction of apparatus, as several variations may be made, without deviating from the principles of my invention, which is to heat the previously prepared tubes of iron to a welding heat, that is, nearly to the point of fusion, and then after withdrawing them from the fire to pass them between dies, or through holes, by which the edges of the heated iron may be pressed together, and the joint firmly welded. The advantages of this tube, compared with those made in the ordinary way, are these: The iron is considerably improved by the operation of the hollow fire, the heat being generally diffused; the length of the pieces of tube thus made is likewise a great advantage, as by these means they may be made from two to eight feet long in one piece; whereas by the old modes the length of tubes cannot exceed four feet without considerable difficulty, and, consequently, an increased expense. These tubes are likewise capable of resisting greater pressure from the uniformity of the heat throughout at which they have been welded; and lastly, both their internal and external surfaces are rendered smooth, and greatly resembling drawn lead pipes. In witness, &c.

The following were referred to in the subsequent legal proceedings on the above patent.

James & Jones' Patent.

Letters patent to Henry James and John Jones, 26 July, 1811, for "an improvement in the manufacture of barrels of all description of fire-arms and artillery."

Specification.—"We, the said Henry James and John Jones, do hereby declare that our said invention is described, ascertained, and performed in manner following; that is to say: Take a skelp, or piece of iron adapted for the purpose of making barrels for muskets, or any other fire-arms; let it be turned or brought into a proper form for welding: heat it in an air or reverberatory furnace, or a hollow fire, or any other fire proper for the purpose, and which is to be so constructed as to give a regular welding heat to one half of the barrel at

a time, or to any other given proportion desired: when it is heated to a proper welding heat, the maundril or stamp is to be expeditiously put into it, and the barrel placed or held on an anvil or swage, grooved to fit the form of it, upon which several hammers worked by steam, water, or any other mechanical power, are caused to fall or strike with great velocity upon such portion of the barrel desired to be welded; and when sufficiently welded and hammered, which would be well known to a person accustomed to weld gun barrels, the stamp or maundril is to be quickly struck out, before the hot barrel has time to contract too close or adhere upon it, to prevent the stamp or maundril from being got out while the barrel is hot; but should that be the case, the barrel must be left until it is cold, when it should be lightly hammered, which will cause the barrel to expand a little round the stamp or maundril,

sufficiently to come out; and for better to facilitate the getting out maundril from so large a portion welded at a time, let the stamp or die of as regular, smooth, and perfect as possible, and of a gradual taper to point. The number, weight, the hammers may be varied according to description of barrel desired; barrels, which are generally from six inches to three feet six inches, wished to weld them at two beats, six hammers; the hammers should be in a straight line, side by side, as true together as they will work free, and of about twenty inches, and in four or five inches. They should be upon the swage or anvil, and rise together, or nearly together, or alternately of the hammers may be either set out a little in those parts which barrel when welding. The hammers, fixed, connected, and worked by forcing to any of the well-known working hammers. Or, instead of barrels by hammers, as before described, may be welded between a pair of dies to fit the form of the barrel, the either an alternate or rotary motion, steam, water, or other mechanical power. Consider the hammers to be the best making the soundest and most perfect in either way care should be taken of the edges, seams or joints of the iron placed true together, to a regular welding heat, and to put the stamp or maundril as quick as the advantages of our aforesaid method of heating barrels in a hollow fire, or an air or reverberatory furnace, and welding them by hammers or rollers worked by machinery, is, that we are enabled to make them much sounder and more accurately and expeditiously than they are at present made; we prevent cinders, ashes, or dirt, from getting into the inside of the barrels, or between the welding seam or joint, which now often happens, and which causes the barrels to bore black, or prove otherwise unsound. Our invention also extends to the turning of all kinds and descriptions of barrels for muskets or other fire-arms, in an improved turning machine or lathe, with cutters or sharp steel instruments or tools, worked by machinery, with steam, water, or any other mechanical power." The specification then proceeds to describe the turning machine, and the advantages of the invention. See 20 Repy. Arts, 265, 2d Series.

Cook's Patent.

Letters patent to Benjamin Cook, 28th March, 1808, for a "method of making barrels for fowling pieces, muskets, pistols, and other similar fire-arms, and ramrods for the same."

The part of the invention alleged to relate to Whitehouse's patent was described as follows: "My second method is to take plates or skelps of iron or steel, drawn under the hammer, or rolled, or otherwise made to a proper size, form, and thickness, which I turn over a maundril beak iron, or any thing suitable to the purpose, and weld them. I then draw or force them through holes, or plates with graduated holes, as above; or I pass them between rollers with grooves in them, as before specified, until they have attained the length, size, form, and thickness desired." See 14 Repy. of Arts, 21, 2d Series.

RUSSELL v. COWLEY & DIXON.

Cor. Lord Brougham, L.C.

In Chancery.

having set forth the grant of the letters patent, and *Bill filed,* cation, and the assignment to the plaintiff, after the *Aug. 6, 1832.* ges, prayed a discovery and disclosure of the matters fore stated, and an account of all the iron tubing sold by the defendants by the use of the said invention of all the profits made thereby, and that the defendant pay to the plaintiff what should be found due on each account, and be restrained from making tubes to the plaintiff's invention during the term of the

affidavits were filed on both sides, and on the motion *June 20, 1833*

J. Sugden for the plaintiff stated, that as an action must be brought, he would accede to the terms proposed by the other party, that an account should be kept, and two persons

appointed on each side as inspectors of the works, for the purpose of giving evidence on the trial of the action, which was to be brought forthwith. It was accordingly ordered—

Order.
June 20, 1833.

That the plaintiff should be at liberty to bring such action at law against the defendants as he should be advised, provided he delivered a declaration within a month from that time. And that the defendants should keep an account of all moneys received by them on account, or in respect of, all iron pipes or tubes for gas and other purposes, made according to or in infringement of the letters patent of Cornelius Whitehouse, in the plaintiff's bill mentioned, and that the said defendants should permit and suffer the solicitor of the said plaintiff, together with Messrs. M. I. Brunel and B. Donkin (each party to be at liberty to name two other persons, to be submitted to the Lord Chancellor for his approbation, if the other party object to them, and each party was to furnish the other with the proposed names, on or before the 22d day of July instant, and the objection, if any, was to be made within four days after the list of the names is furnished, and if the names are objected to, the Lord Chancellor would decide what persons should be allowed), to go over the manufactory of the said defendants, situate at Walsal, in the county of Stafford, and inspect the machinery set up there for making iron pipes or tubes for gas or other purposes, and to observe the method or methods of manufacturing such pipes or tubes by the said defendants, for which purpose the said defendants were to put their machinery to work in the presence of the said viewers, and to afford every facility to them to ascertain the process of welding tubes by means of such machinery, and every part thereof, it being the object and intention of this court to enable the said plaintiff to give such evidence to the court and jury on the trial of the aforesaid action at common law, as will enable him to make out (if the fact be so) the infringement complained of by his bill in this court. And that the said plaintiff should in like manner permit and suffer the solicitors of the said defendants, together with Messrs. Bramah and Clegg, and such other persons as aforesaid, in their company, to go over the manufactory of the said plaintiff, situate at Wednesbury, in the county of Stafford, and inspect the machinery set up there for manufacturing iron pipes or tubes for gas, and other purposes, and to observe the method or methods of manufacturing such pipes or tubes by the said plaintiff, for which purpose the said plaintiff was to put his machinery to work in the presence of the said viewers, and to afford every facility to them to ascertain the process of welding tubes used by him, according to the terms of the specification of the letters patent in the plaintiff's bill particularly mentioned, it being the object and intention of this court to enable the said defendants to give such

ance to the court and jury on the trial of the aforesaid
at law as will enable them to prove (if the fact be so) the
ive of the infringement complained of by the said plain-
bill. And that the plaintiff's and defendants' solicitors
d respectively give notice to each other of the day and
on which the viewers should respectively appoint to visit
view the respective works, the day to be named in such
s respectively, being at the distance of one week from the
ry of such notices respectively, and the hours of inspec-
o be from ten in the morning until four in the afternoon,
said viewers should require to remain so long upon the
ses, and the said viewers respectively should be at liberty
try away with them any specimen of the pipes or tubes
ted upon by them, or in their presence, as they might
proper, in order to their production in court on the trial
said action.

was further ordered, that J. Hobbins (the superintendent of
iff's works) and C. Whitehouse (as showers) should attend *Order.*
s. M. I. Brunel and B. Donkin in going over the manufac- *July 27, 1833.*
f the defendants, for the purposes mentioned in the above
but they were not to be produced as witnesses on the
t law as to any matter or thing which should come to
knowledge by means of such inspection.

RUSSELL v. COWLEY & DIXON.

Cor. Lord Lyndhurst, C.B.

s declaration stated the grant of the letters patent to *Trial at law.*
house, and the assignment to the plaintiff, and as- *Feb. 14, 1834.*
d several breaches in the usual form. The defendants
ed, not guilty.

James *Scarlett* stated the plaintiff's case, and described
o former modes of making gas pipes, the one by boring in a
out of the solid, the other by turning up the edges of a flat
so as to make them lap over, and then heating the iron
welding heat, when the metal could be united by means of
ers, and the use of a maundril or metal rod inserted
the tube for the purpose of keeping it of a circular form,
sisting the blows applied to the metal.

s invention of Whitehouse, which had been assigned to
laintiff, consists in turning up a piece of plate of iron so
he edges abut on each other, or nearly so, heating the
so prepared, and drawing it when at a welding heat

Trial at law.

through dies, having a conical hole, which admits a rather larger tube on one side than on the other, and by the compression which the edges receive in the drawing, the tube becomes perfectly formed and welded, without the use of the maundril. The effect of this mode of manufacturing tubes produced a complete revolution in the trade, at once reducing the price of tubes by one-third; besides, the tubes so made are of much greater length and of greater uniformity, both internally and externally, and the trade of making tubes came immediately after the patent almost entirely into the hands of the plaintiff.

The defendants pass tubes through grooved rollers, by which they are said to be completely welded, and afterwards through what they call a scorpion, which is in effect the plaintiff's die, but which the defendants contend to be only for the purpose of scraping and lengthening, and not for the purpose of welding; but it would appear that the welding could not be completed without the scorpion by the rollers alone; the weld made by rolls alone being so imperfect, that the tubes would not be marketable. The defendants contend that the scorpion is only for the purpose of scraping and lengthening, and not for the purpose of welding; if this be so, why is it made bell-mouthed, and, in fact, exactly like the plaintiff's pincers or dies? It is further said by the defendants, that their tubes when passed through the scorpion are not at a welding heat; first, because water is poured on the iron, and secondly, because of the distance to which the tube is conveyed before being passed through the scorpion. But the heat of the iron is so intense, that the water has no effect on the iron at a welding heat; and with respect to the distance, it will be shown that the iron will continue at a welding heat though carried fifty-eight instead of fifteen feet; that it retains a welding heat for seventeen or eighteen seconds, whereas it may be carried from the furnace to the scorpion in less than two seconds. The rollers are introduced to give a colour to avoid the plaintiff's patent (*x*). An attempt was made before the Chancellor to show that one Cook was the original inventor of the plaintiff's mode; but Cook's invention consists in passing iron through a series of graduated holes until it assumes the form of a tube, and Cook now purchases tubes from the plaintiff.

Plaintiff's evidence.

Mr. Donkin and Mr. Brunel were then examined as to the result of their inspection of the plaintiff's and defendants' works in pursuance of the order of the Chancellor (*y*). They described having seen tubes made at plaintiff's works by heating and drawing through conical holes in the manner described in the specification of Whitehouse's patent. They detailed some

(*x*) The plaintiff ultimately succeeded, on evidence that these rollers alone produced a welding

in the iron, as described in the specification. *Post*, 462. (*y*) *Ante* 458.

experiments in which the tube was carried fifty-five feet from the furnace, and then passed through the tongs and welded. At the defendants' works the skelp was heated in an air furnace; the rollers (which were placed three inches from the furnace) had four grooves in each; the diameter of the rollers at the bottom of two of the grooves being 5 inches, and of the other two $4\frac{7}{8}$ inches. The scorpion had three graduated conical holes; it was fixed to a cast iron frame, and resembled a pair of tongs. The rollers made about one hundred and twenty revolutions a minute. When the heat of the skelp was sufficient, the revolution of the rollers passed it through, the upper roller being pressed down by the hand; the tube having passed once through the rollers was returned to the fire and reheated, then passed three times through the rollers in quick succession, and then drawn through each of the holes in the scorpion in succession; the tube continuing all the time at a welding heat. The passage through the scorpion elongated the tubes considerably. Tubes made by passing through the rollers alone would not be cylindrical or marketable. The defendant Cowley and his solicitor refused to allow any tubes to be made by drawing through the scorpion alone. The tubes made by the rollers alone were misshapen; one part of the iron being driven past the other. The tubes made by passing through the rollers and scorpion are as good as the plaintiff's; the scorpion is precisely the same thing as the plaintiff's tongs. Better pipes would be made by passing the skelp through the scorpion alone, than by passing through the rollers and scorpion. The defendants' process was very dilatory, and would occasion a great increase of expense. At the plaintiff's, the tube can be welded and completed by passing once through the die. One purpose of passing several times through the die is to lengthen the pipe. The defendants' scorpion was not for scraping. Water was dripping on the scorpion at the defendants', and the tongs were dipped in water each time at the plaintiff's.

*Evidence for
the plaintiff.*

Mr. Carpmael described the pipes manufactured by the plaintiff as very superior to those made in the old way; that pipes previously welded by passing through the rollers would be greatly improved by the scorpion; they would become more intimately welded, and any inequality in the welding or on the surface would be removed, and the pipes rendered perfectly cylindrical, and those before unmarketable would be rendered marketable by being drawn through the scorpion. Tubes were formerly made about four feet, but by the plaintiff fifteen feet, in length. The pipes could be made as perfect by the scorpion of the defendants, as by the plaintiff's dies. The rollers are useless and injurious. The diameter of the innermost parts of the grooves in each roller being less than the diameter of the outer parts, the surface of one part of the groove travels at

Trial at law.

a greater velocity than another part, and drags the parts of the tube at a different rate. There is a tendency, therefore, in proportion to the size of the grooves, to separate the parts unequally, that is, the fibres of the tube, which is drawn through only by friction or adhesion to the surface of the grooves (2).

At the close of the plaintiff's case, the learned judge recalled Mr. Brunel and Mr. Donkin, when the following questions were put, and answers given:—

Lord *Lyndhurst*, C.B.: "When the upper roller is down, its lower edge lies upon the upper ledge of the under roller; and there is a hole between the rollers, and through that hole, by means of the revolution of the rollers, the heated tube is drawn. Now I wish to ask you, whether that (without the scorpion) which they say, by pressure, welds the heated tube—the sides of the hole, they say, weld the tube—is in your judgment similar; though not exactly the same, similar to the invention of the plaintiff; the plaintiff stating that his invention is of this description—'The principle of my invention is to heat the previously proposed tubes of iron to a welding heat, that is, nearly to the point of fusion, and then, after withdrawing them from the fire, to pass them between dies, or through holes, by which the edges of the heated iron may be pressed together, and the joint firmly welded;' I want to know, whether that effect is produced by the rollers, although not so perfectly as by the dies?" Mr. *Brunel*—"It is produced by the rollers."

"Then I want to know, whether the passing them through the rollers in that way alone is not similar, although not so perfect, as passing them through the dies or through the tongs?" Mr. *Brunel*—"It is my opinion that it is the same."

"It is by the pressure of the sides of that hole that the edges of the heated iron are welded together?" Mr. *Brunel*—"It is."

"By passing through the holes of the dies, it is by the pressure of the sides of the hole that the edges of the heated iron are welded together?" Mr. *Brunel*—"Quite so."

"Then, I ask, whether, if it is a question of welding, the one is in your judgment similar to the other?" Mr. *Brunel*—"It is."

"Mr. Donkin, you have heard the questions I have put to Mr. Brunel—I wish to have your opinion upon the same point?" Mr. *Donkin*—"I think the holes, when closed one upon the other, produce a similar effect, and the method of welding is therefore the same."

(*) Several other witnesses were examined as to the effect on the trade, the diminution in price, and the utility of the invention. Also to show that the rollers were useless, or not intended to be used; and that the tubes were drawn through the

scorpion at a welding heat—the plaintiff's case being that the tubes were in fact made by the scorpion, and that the rollers were but colourable. But this evidence became unimportant in the result. See per Sir J. Campbell, A.G., post 464.

"Then you do think one invention in principle is similar to A.D. 1834. the other?" Mr. *Donkin*—"I do."

Lord *Lyndhurst*, C.B.: I confess it appeared to me from reading the specification, that without the scorpion the one is a imitation of the other; because this party says, "I do not claim this particular apparatus only. I do it by the die, or I do it by the tongs; the principle of my invention is, to pass the heated tubes through the hole at a welding heat, and by pressure occasioned by that hole to unite together the heated edges by welding." That may be done more or less perfectly—whether it is by the rollers or by the tongs, it is not very material; the one is similar in principle to the other.

Sir J. *Campbell*, S.G., for the defendants. It is evident from the answers last given, that the plaintiff cannot sustain this patent. The patent granted to *James & Jones* is for welding by rollers, precisely upon the same principle, and in substance the same, as that granted to *Whitehouse*. The process is to be completed by means of pressure, by means of a circle through which the object passes; whether this be done by rollers, or draw-bench, or through a ring, signifies not, the principle is the same, to produce a welding by circular pressure. But not only was welding by rollers perfectly well known before *Whitehouse's* patent, but in 1808 Cook took out a patent for making tubes by drawing them through graduated holes. The tubes were first welded on a maundril, and then finished by drawing through a draw-plate, which is the same as the defendants' scorpion.

The learned counsel then proceeded to comment on the evidence adduced, and to state the nature of the case on the part of the defendants. At the close of his address, after some discussion, it was arranged that there should be a verdict for the plaintiff, with liberty to the defendants to move for a nonsuit.

Verdict accordingly.

In the Exchequer, E. T., 1834.

Sir J. *Campbell*, A.G., in pursuance of the leave reserved, moved for a rule to show cause why the verdict should not be set aside and a nonsuit entered. The question will be, whether, on account of a prior patent, the plaintiff's patent is invalid, because the specification claiming more than the novelty extends to. Lord *Lyndhurst*, C.B.: The invention claimed seems to be this, that of bringing to a welding heat a long piece of iron of a proper quality after having turned up its edges, and then

Motion for nonsuit.

*Motion for
nonsuit.*

heating it to a welding heat, and drawing it through a hole of the proper size of the intended tube, so as to compress together the edges, and give it a complete circular form.] To make it pass through a hollow cylinder. [Lord *Lyndhurst*, C.B.: I mean any circle, either a die, as described here (referring to the specification), or a pair of pincers, or in any other way in which a cylinder can be produced.] The defendants turn up the skelp and heat it in the furnace, and pass it through two rollers with grooves. Rotary motion being given to the rollers, and the skelp introduced into the groove, it passes through the hollow cylinder by means of that rotary motion; the compression takes place in the hollow cylinder, and the welding is accomplished. But besides these rollers there is what is called a scorpion, which in fact was a die, and very much resembled the die in the plaintiff's specification, and the great controversy during the first day's trial was, whether the process of welding by the defendants was consummated by the skelp passing through the rollers, or whether its passing through the rollers was not merely colourable, and that by the passage through the die, which the defendants call a scorpion, the welding was completed. But the defendants' case was, that the welding was accomplished by the rollers. It struck his lordship, that the defendants upon their own showing had infringed the plaintiff's patent, because, according to the evidence of Mr. Brunel and Mr. Donkin, the mode of welding by rollers and by dies was in reality and essentially the same. So that it may be assumed that the defendants have infringed the plaintiff's patent, though the scorpion had never been used at all, but the welding had been completed by the rollers alone, because it was clearly an adoption of the plaintiff's principle, though by a different method. The question will then be, whether the same principle is not disclosed in the specification of *James & Jones's* patent. They first describe the skelp, then the mode of welding by hammering, by introducing a maundril, and then hammering on the anvil; and then a mode of welding by hollow rollers, which is an exact description of the mode in which the defendants' welding is accomplished. [Lord *Lyndhurst*, C.B.: As it struck me at the time, that is done on the maundril. It struck me, that the only difference between the two was, that the one was done with the maundril and the other without. They say it is of great importance dispensing with the maundril. If that be so, the patent should be for doing without the maundril. When it was said to be the same thing, it was contended on the part of the counsel for the plaintiff that it was not the same thing, for in that patent the maundril was used. Then, I think, I observed to Sir James *Scarlett*, "Then your patent should be for dispensing with the use of the maundril," and I was inclined to consider the objection as fatal. But I thought the

er course, in consequence of the long inquiry, to go on. A.D. 1835.
[then the Attorney General, after no inconsiderable consul-
on, said he would rest the case on that objection.]

Rule *nisi* granted.

: Lord *Lyndhurst*, C.B.; *Parke*, B.; *Alderson*, B.; *Gurney*, B.

Mr James *Scarlett*, *Rotch*, and *Follett*, now showed cause Argument on motion for nonsuit.
inist the above rule, and argued at considerable length the
stion of infringement, but the judgment of the court did not
a upon that point. The matter for the consideration of the
rt is this, whether *James & Jones's* patent, upon mere in-
ction, without a single witness, or any evidence whatever
dered in explanation of it, necessarily shows that the inven-
claimed by the plaintiff is not new. It is contended, that
plaintiff's method of welding, by passing the tubes through
ie, is the same as that of welding by rollers, described in
Jones & Jones's specification :—" or instead of welding the barrels
ammers, as before described, they may be welded between a
of rollers, grooved to fit the form of the barrel, the rollers
ing either an alternate or rotary motion, and worked by
m, water, or other mechanical power; but we consider the
mers to be the best method." Shall the plaintiff's patent
defeated by what is a mere speculation as to the possibility of
as being welded by passing them through a roller? Suppose
in some old treatise on the manufacture of iron a sugges-
were found that pipes might by possibility be welded by
sing them through rollers, could it be contended that this
ld invalidate the patent?—and yet nothing more is done in
Jones & Jones's specification. To substantiate the defence, the
ers themselves ought to have been produced at the trial, and
wn to be the same in effect and power as the die. There is
eat difference between the operation of the roller and the

In using the roller, all parts of the tube have not an equal
sure at the same time; and the larger the tube the greater
imperfection in its manufacture. The use of the maundril
is another important distinction between the two methods.
has proved that the maundril could not be used in the ma-
cture of a tube of any length, and the reason is, that
instrument is obliged to be withdrawn while the tube is
very hot. It is impossible, consequently, to manufacture
es with the maundril of greater length than a fowling piece.
another particular, also, the die differs from the roller. The
s have a conical or bell mouth, to admit the tube being of
er dimensions when it goes in than when it comes out.

Argument on the rule.

A different mode of attaining the same object, as welding by fixed dies instead of rollers, or welding by the omission of a maundril previously in use, is a good subject-matter.

This cannot be effected by means of rollers. The pipe in passing through the die assumes a diminished form. This is an essential part of the principle of the plaintiff's patent, and the operation of the roller in revolution cannot embrace any part of that principle. [Lord *Lyndhurst*, C.B.: Suppose a patent had been taken out for welding tubes by means of rollers, could there not have been another for effecting that object by means of fixed dies?] Certainly there could. [*Parke*, B.: The plaintiff's patent is for drawing tubes through fixed dies without the use of the maundril; if so, it is not the same as *James & Jones's* patent.] [Lord *Lyndhurst*, C.B.: It is the same as if the specification had stated that the operation was to be effected without the assistance of a maundril. If the words, "without a maundril," had been inserted in the specification, would not that have shown the invention to be perfectly new?]

Sir J. *Campbell*, A.G., *Platt*, and *Richards*, *contra*. The specification claims too much, and the plaintiff seeks to appropriate to himself what is not a new invention. The real question is this; is the invention claimed that of welding tubes by means of circular pressure? It is perfectly immaterial whether that pressure is applied by drawing an instrument through the tube, or the tube through an instrument. At the trial it was assumed that the two modes were the same in effect, and the question made was, whether there had been an infringement? The defendants' mode of welding was by means of rollers. That circular pressure in general is the principle claimed by the plaintiff, appears from the following part of the specification:—"I do not confine myself to the employment of this precise construction of apparatus, as several variations may be made without deviating from the principle of my invention, which is to heat the previously prepared tubes of iron to a welding heat, that is, nearly to the point of fusion, and then, after withdrawing them from the fire, to pass them between dies, or through holes, by which the edges of the heated iron may be pressed together, and the joint firmly welded." [Lord *Lyndhurst*, C.B.: "Them," means the prepared tubes of iron, that is, tubes without a maundril.] The operation, as described, depends upon the drawing of the tube, whether there be a maundril or not. In the operation of the rollers it is the same as if the tube passed through a hole, and this specification in fact claims the system of the roller, which produces a hole through which the tube is passed. According to the specification, what is there to prevent the plaintiff from using the roller to effect the welding instead of the die?

The principle, then, claimed by the specification being that of welding by means of concentric pressure, is the same as that of *James & Jones's* patent. Their specification states that, "instead of welding the barrels by hammers, as before described,

they may be welded between a pair of rollers, grooved to fit the M. T., 1835. form of the barrel, the rollers having either an alternate or a rotary motion, worked," &c. [Lord *Lyndhurst*, C. B.: The material point for you to establish is, that *James & Jones's* patent included welding without the use of the maundril. If the maundril is inserted, where is the difference between producing it by pressure and producing it by the hammer?] *James & Jones* in their specification show a method, according to which, by passing the tube through a hole, the welding is complete, and according to the plaintiff's own evidence, the effect of the roller and of the die is the same in producing the welding. [*Parke*, B.: The question is, whether the plaintiff claims the invention of welding without the assistance of any internal support. It is quite clear to me that any man of intelligence, reading the specification, must see that the patentee claims to effect his invention without the application of any internal substance, and the only point is, whether the general words at the end of the specification include too much.] [Lord *Lyndhurst*, C. B.: It is obvious that the patent excludes the use of the maundril. This appears from the latter part of the specification, in which the effects of the new invention are stated. The greater length of the tubes shows that the maundril is not intended to be used. The particular description excludes the use of it, and the general description, taking it in connexion with the effects stated, likewise excludes it.] After all the question amounts to this, whether *James & Jones's* patent does not come within the large principle claimed by the plaintiff's specification. Suppose *James & Jones's* patent had been posterior to that of the plaintiff, would it not have been contended to be an infringement?

Lord *LYNDHURST*, C. B.: There is no question in this case *Judgment.* as to the infringement, at least there is no question before us at present as to the infringement; and the first question is, is this a new and useful invention?

That it is a new invention, and that it is a useful invention, no man, I think, can entertain any doubt. The invention, as I understand it, in fact, without referring at present to the objection made to the form of the specification, is to make pipes of his description without the use of the maundril, that it is to weld them without hitting them upon any solid surface, or without hammering them on any solid surface; and though that seems to be a very simple invention, it has been productive of great advantages; inasmuch as it has enabled the manufacturer to construct pipes for gas and other purposes very correctly, and also of lengths much beyond what could be done previously to this discovery. I think, therefore, in fact, practically, it is a new invention, and an invention of great importance. But then, it is said on this specification as claimed that it is not new, or in

The invention practically of great importance, and new, although the specification may claim too much.

Judgment.

other words, that too much is claimed on the specification. Now the question, therefore, resolves itself into this, whether in point of fact on the true construction of this specification too much has been claimed? Now as I read the specification (and I will refer to it more particularly presently), it appears to me that the claim upon this specification is to manufacture tubes of this description without having any maundril, or any thing equivalent to the maundril, within it; the maundril is excluded: it is excluded in the particular description; it is excluded also in the general claim. First, as to the particular description. It describes, in the first instance, the turning up a plate of iron and forming it into a tube, and after it has been so formed into a tube it is heated in a furnace to a welding heat, and is then drawn through a die, or that which is equivalent to a die—those pincers (pointing to them)—and by those means the manufacture is completed; that is the particular description which excludes the maundril, not only excludes the maundril, but excludes any internal support; because the difference between this and the former mode of manufacture is, that the welding was produced by blows or pressure on the iron, the iron being supported on the inside by some solid substance. That being then the particular description, is the claim extended further by the general description, or the general claim? In my opinion it is not, because, when we advert to the terms of the specification, they are these: “I do not confine myself to the employment of this precise construction of apparatus, as several variations may be made” in the apparatus: the principle, he says, is “to heat”—what?—“to heat the previously prepared tubes of iron,” tubes of iron that had been previously prepared without any thing within them, to heat those tubes to a welding heat, that is, nearly to a point of fusion, and then after drawing them from the fire to pass them between dies or through holes, “by which the edges of the heated iron may be pressed together, and the joint firmly welded.” Now, what does that amount to but this?—“I have described the apparatus by which these prepared tubes of iron, having nothing in them, are welded together; I have described the particular apparatus by which that is effected. I do not confine myself to that precise description of apparatus, but these previously prepared tubes of iron, which I have described, may be heated to a welding heat, and may by variations in this apparatus be drawn through dies, or holes, and formed in this way.” But there is no suggestion that any alteration is to take place in what I consider the nature of the invention, namely, that this is to be done without any internal support, and if you go on further it is quite clear it was to be done without internal support, because he goes on and describes what the effects are—he says, “the advantages of this tube compared with those made in the ordinary way, are these—the iron

The invention is, the heating the tubes, previously prepared without a maundril, to a welding heat, and then drawing them through a conical hole, so as to make a perfect junction.

is considerably improved by the operation of the hollow fire, M. T., 1835. the heat being generally diffused." Then he says, "the length of the pieces of tube thus made (that is the principal advantage) is likewise a great advantage, as by these means they may be made from two to eight feet long in one piece, whereas by the old modes"—so that he refers to the old modes of welding by the maundril—"whereas by the old modes the length of the tubes cannot exceed four feet without considerable difficulty, and consequently an increased expense. These tubes are likewise capable of resisting greater pressure, from the uniformity of the heat throughout at which they have been welded; and lastly, both their internal and external surfaces are rendered smooth; and greatly resembling drawn lead pipes."—So that independently of the words of the general claim, which, in my opinion, standing by themselves would exclude the idea of any maundril being used, when he comes to point out the particular advantages resulting from this mode of manufacturing tubes, he points out advantages which are absolutely inconsistent with the use of the maundril. If so, then I think he has accurately described and limited his invention, which is an invention to manufacture tubes for gas and other purposes, by welding them without the use of any maundril, or internal support, by which certain advantages are produced. Those advantages are of the greatest consequence to the public. It appears to me, therefore, he has limited his claim to that which is really the invention, and having limited his claim to that which is really the invention, that being new, it appears to me that the patent is supported. I am of opinion, therefore, that the verdict for the plaintiff should stand.

The invention is to manufacture tubes by welding them, without the use of the maundril, or any internal support.

PARKE, B.: I am also of the same opinion: and after the manner in which the case has been noticed, it will be unnecessary to make any observations at great length upon it. It has appeared to me, from the moment I understood the case, that the question at last would resolve itself into a question of the construction of the specification. It appears to have done so, and the whole turns on the meaning of the specification. If it is, as alleged by the Attorney General, a claim for every mode of uniting pipes by passing iron heated to a state of welding heat, then it is bad, because there was a mode before in existence and known before, which is described in *James & Jones's* specification, by which the same thing might be done; but if the claim is, as was alleged on the part of the plaintiff—a claim only of a different mode of making iron pipes in the particular manner described, by passing that iron in a state of welding heat through a circular hole, without any maundril or internal support—then it certainly is not the same thing that was done before. It appears to me, on reading this specification—reading it with that degree of intelligence which persons bring to bear on such subjects—that the

Judgment.

meaning of the patent itself, is only that limited claim to the invention of making gas pipes by means of passing the iron through a circular hole, without maundril or internal support; and I think we ought to read this patent without a disposition to upset it, which has been too frequently the case in many instances on such subjects, that we ought to read it fairly, in order to understand what the meaning of the patentee is. It is unnecessary to refer to every part; but reading the concluding part in connexion with what goes before—by which description every man who understands the subject must know that a maundril is not meant to be used; and also reading what comes after, when the advantages of this mode are pointed out, it is perfectly clear that he means to exclude the maundril; and then, if so, there is no doubt the defendants have been guilty of an infringement. I am certainly exceedingly happy to concur in the opinion which his lordship has expressed, by which the fruits of a very ingenious invention will be secured to the person deserving it.

ALDERSON, B.: I entirely concur in the opinion of my Lord *Lyndhurst* and Mr. Baron *Parke*. It seems to me that, reading the specification of this patent, the plaintiff lays claim to the drawing of the heated tubes through a die for the purpose of welding them by that operation. When you examine the specification which the plaintiff has put in, after making it clear that the iron is first brought into the form of a long cylindrical tube, the operation then is thus described. "This tube is then put into a hollow fire, heated by a blast, and when the iron is upon the point of fusion, it is to be drawn out," (that is the tube) without any maundril, because if the maundril were put in the furnace with it, the maundril would be heated too, and there is no description of the maundril being put in after the heating, previously to the second part of the operation. In *James & Jones's* patent I find the process just the reverse; for, after describing that the tubes are to be heated to a proper heat, the maundril is to be expeditiously put in, then the beating it by the hammer as described is consecutive. But here there is no mention of any maundril being put in; and the question is, whether any person reading that would not see that this is a description of an operation that was to be performed by means of drawing a hollow tube, previously heated, through dies for the purpose of welding; and if that be the limited construction to be put on the whole of the specification, fairly and clearly and candidly taken together, which I think ought to be the construction put upon patents—we ought not to be understood to deprive people of advantages which their own ingenuity and talents entitle them to receive—we ought to give them a fair and candid construction—certainly not by any means being astute to pick holes in their specifications. On these grounds, not going through the other part of the case, but now confining

to this observation, which appears to me to be confirmed M. T., 1834.
 at degree by the view which his lordship and my brother
 have taken of the case, I have only to express my
 y, that this patent should stand.
 NEY, B.: I can only express my entire acquiescence in
 as fallen from my learned brothers, and can add nothing
 to what they have stated. Rule discharged.

Cor. Lord Lyndhurst, L. C.

In Chancery.

was a motion, grounded on the result of the preceding Dec. 24, 1834.
 at law, for a perpetual injunction to restrain the defend- Injunction
 om making, using, or vending iron tubes or pipes for gas, granted after
 ar purposes, according to the invention of Whitehouse, action at law.
 a reference to the Master to tax the costs of the two
 ng applications (a), on the consideration of which the
 n of costs was reserved (b).
 V. Horne, on the part of the defendants, opposed the ap-
 n for costs as premature, it not being the practice to
 ny order as to costs, in cases of injunction, except where
 osition was without foundation, until the hearing.
 Lyndhurst, L. C.: You are entitled to the injunction.
 e the question of costs until the hearing.
 Order accordingly (c).

the 20th of June and 27th of July, 1833,
actice as to costs of trials at law.—The
 re silent as to the costs of the trial at
 on the plaintiff entering up final judg-
 his verdict, the defendants took out a
 for a stay of proceedings as to taxing of
 evying execution for the amount, without
 n to the court, and also gave a notice of
 fore the Chancellor that the costs of the
 ould abide the hearing of the cause on
 rections, and that the plaintiff should
 xecution for such costs.
 mmons was heard before Mr. Baron
 chambers, and reference was made to
 of Chancery practice, as to costs of
 actions directed by the court, but the
 dge held that this was neither an issue
 ion directed, but one permitted and left
 the option of the plaintiff, to bring or
 should be advised, and that the ques-
 therefore be governed by the rules of
 aw, inasmuch as either plaintiff or de-

fendant could apply for a nonsuit, or a new trial,
 or bring a writ of error, without the leave of the
 Court of Chancery. His lordship dismissed the
 summons, and the motion to the Chancellor was
 abandoned.

(c) The plaintiff by an order, 24th Jan. 1835,
 amended his bill, without prejudice to the above in-
 junction, by adding the three other partners as de-
 fendants, and by stating that the plaintiff had been
 in sole possession of the said invention, except so
 far as he had been interfered with by certain per-
 sons, against whom he had obtained injunctions,
 and who had submitted; adding also a charge of
 selling pipes at prices greatly under their real
 value, with a prayer that the defendants might
 account for the profits, which might or ought to
 have been made. The five defendants put in
 their answer in June, 1835, and immediately after-
 wards an arrangement was made, the plaintiff
 accepting £6000, with all costs of suit, and the
 injunction being (9th Feb. 1836) made perpetual
 against all five defendants.

RUSSELL v. BARNSLEY.

In Chancery.

Cor. Sir L. Shadwell, V. C.

Jan. 23, 1834.

An *ex parte* injunction had been obtained in this case from Lord Brougham, L. C. (15th April, 1833), and it was part of the order that the motion should be heard before the Vice Chancellor.

The bill stated that the defendant had made, and by himself and his agents offered for sale and sold, large quantities of pipes according to Whitehouse's invention, and, after the usual charges, prayed an account and injunction. The defendant in his answer denied the novelty of the invention, and stated that he was a vendor and not a maker of tubes; that according to his belief there is no material variance between the plaintiff's process and the one referred to by him; but of that one Willett was the inventor, and had used it for many years, and long before the patent of Whitehouse. That he had long ago relinquished the business of manufacturing to Willett, but continued to supply iron, and purchased tube back from him. The defendant also denied the novelty of the invention by reason of Cook's patent (*d*). The quantities of pipes sold, and prices, were set forth in a schedule annexed.

Knight now moved to dissolve the injunction.

The motion was opposed on the part of the plaintiff by Sir E. Sugden and Campbell, who argued that under the circumstances of the case and the long-continued enjoyment of the plaintiff, and while an action was pending against other parties which would decide the question of the validity of the patent, the plaintiff would not even be put under terms of bringing an action.

The fact of a pendency of an action against another party, is not a sufficient ground for continuing an *ex parte* injunction, without putting the plaintiff to bring an action against the new defendant.

Sir L. SHADWELL, V. C.: I shall certainly continue the injunction; I may be wrong, but it really does appear to me at present that the principle in Whitehouse's specification—the thing he claims to have done—is to draw the tube when it is in a state of fusion immediately from the furnace, through the die, so that the very extraction from the furnace is to be simultaneous with the passage through the die, and, consequently, the state of fusion, or rather that approximation to a state of fusion, will remain throughout the process, and that is different to what is stated by Mr. *Knight*.

I do not myself recollect a case in which, where the defendant has stated his wish—a defendant against whom a bill is filed for the infraction of a patent—to try the question at law, that the

is refused to give him that opportunity; and what Lord A.D. 1834. says in that case, of *Hill v. Thompson*, is this—"It was on the part of the plaintiff, and the court agreed to it, that where a person has obtained a patent, and exclusive enjoyment under it, the court will give so much credit to his apparent right as to interfere immediately, in action, to restrain the invasion of it, and continue that action until the apparent right has been displaced" (e). It does not at all follow, because it appears to me at present that the patent is good, that there may not be a different view taken by a court of law. I apprehend that the legal view which is that which must ultimately bind this court, and if the plaintiff wishes to have the question tried at law, he must be ready to do so.

Sugden: Of course I must admit the general principle, but the only ground on which I put it is the pendency of the action.

SHADWELL, V.C.: At present I do not know enough of that case to say it will determine this. It seems to me the proper course to pursue will be to continue the injunction in the former order, on the terms of the plaintiff undertaking to bring an action within three months, for the purpose of trying the validity of the patent. The infringement is to be admitted. Order accordingly (f).

IN THE PRIVY COUNCIL.

EXTENSION OF WHITEHOUSE'S PATENT.

There was an application on behalf of Mr. Russell, for an extension of the term assigned to him in Whitehouse's patent. The petition set forth briefly the history of the progress of the invention and improvement in the manufacture of iron tubes, gun barrels and gas pipes; the invention of Whitehouse, a famous mechanic in the petitioner's employ; the taking out of letters patent for the invention for England, Ireland, and Scotland, at the petitioner's expense, and the assignment of the patent to the petitioner for a valuable consideration. The demand for the tubes became general so soon as the

236.

The action was brought, and the defendant subsequently withdrew his pleas, and the plaintiff had judgment by default. The de-

fendant was subsequently committed for contempt of court by breach of the injunction, but discharged on undertaking to commit no further infringement, and payment of costs.

Petition.

first prejudice was overcome, and very extensive works were erected to meet the increasing demand, at an expenditure of upwards of £10,000. That the pipes became applied to a great variety of new purposes, as the warming of buildings by the circulation of hot water and steam, the boilers of locomotives, shafts for machinery, axles, and various purposes, where lightness and strength were required.

That so soon as the merit of the invention became well known, every kind of expedient was resorted to for the evasion of the patent, and the petitioner has been involved in continual litigation from Hilary Term, 1830, against various parties, and has been uniformly successful; the expense of which, however, in addition to the capital expended, and the loss incurred by surreptitious manufacture and sale, had prevented the petitioner from the enjoyment of the advantages which he had a right to expect from so important and successful an invention.

Dec. 12, 1838.

Cresswell (James *Campbell* with him) appeared for the petitioners, and having opened the case, the Attorney General said that he did not appear to oppose the petition from any doubt of the originality or utility of the invention, but to watch the proof that the parties had not been remunerated, and to what period the extension should be allowed to afford remuneration.

Evidence.

Mr. A. M. *Perkins* stated, that he was the patentee of an invention for warming buildings; that no other tubes than Russell's would have enabled him to carry out his invention; that he had tried other tubes, but they would not bend cold; that it was essential to him to be able to bend pipes cold into the form required, without bulging or splitting. The usual pressure to which the pipes were proved was 5000 lbs. on the square inch. Another excellence of the pipes was the manner in which they could be screwed together. He generally used them in lengths of twelve or thirteen feet; he had used nearly a million of feet during seven years, and had found them of the greatest advantage to his invention.

Mr. Francis *Bramah*: I inspected the premises, and should think that from £10,000 to £12,000 must have been expended for the plant as it stands—the machinery, buildings, and steam engines. If the patent were thrown open, there would, from the simplicity of the manufacture, be a great reduction in the value of the premises and of the outlay. A great deal of the machinery is fitted only for the particular purpose, and is not convertible to other purposes, and would not pay for the removal. The manufacture, if thrown open, would hardly be worth following; it is so beautifully simple, that it would be almost within the reach of every person of capital. In the case of the hydraulic presses, of which my father was the inventor, we are not now able to compete in the London market with the Scotch and Staffordshire manufacturers. As the son of an

The merit and utility of the invention, and outlay.

inventor, who had between twenty and thirty patents, I should A.D. 1838. say (considering the risk, and trouble, and expenditure), that twenty-five per cent. profit upon the outlay would be a moderate remuneration for so valuable an article as that given to the public by Mr. Russell. If machinery be kept in a constant state of repair, it is of equal value to the party working it at the expiration of eight, or ten, or fifteen years. If the monopoly be continued, I should be glad to give £20,000 for the plant, &c., with a view to profit. The most valuable use to which we put the pipe is for connecting the pumps with the hydraulic press. It was very difficult to obtain pipes that would stand the enormous pressure of our presses, which are proved for three tons on the inch. The copper pipe made for these purposes cost the public 10s. a foot; now the public has a better article for 1s. 3d. a foot.

Mr. F. P. Hooper: I have been solicitor to the petitioner in *Law expenses.* all the cases; six in equity and two at law. My costs amounted to £2,942, of which £1,039 18s. have been paid by the other parties. There were expenses in the country amounting to £380; besides, there were two suits in Scotland, of which the costs were £700. The damages at law were nominal only; the compensation in one case was arranged at £6000; in the other the party went to gaol. Mr. Russell's law expenses have been upwards of £4000, and his life was endangered by the anxiety of the Chancery proceedings.

Mr. J. Hobbins, clerk to the petitioner. Many experiments were made and expenses incurred by Mr. Russell in perfecting Whitehouse's invention. The ground, buildings, and machinery, cost about £14,000. This includes the restoration and enlargement, but not the wear and tear. This applies wholly to the present invention. The books were placed in the hands of Mr. Puckle, an accountant. About ninety men and boys are employed on the patent business merely. The manufactory and the whole of the mill apparatus has been down once; it was worn out.

Mr. Puckle. The books of Mr. Russell were put into my *The profits.* hands for the purpose of extracting the amount of profits. I extracted the whole of the tubing from the rough day books, and consolidated them under various heads and sizes, and ascertained the average cost. The expenditure connected with the outlay I took from the cash book. I ascertained the average yearly sales, and deducting the average cost, which I procured from Mr. Hobbins, I got at the profit. [Mr. Hobbins recalled. I made out the statement of the cost from calculations formed on my general experience of the concern, and the workmen's wages which passed through my hands. The day books contain a correct account of the sales made, and the prices charged. The pipe is sold at 4½d. per foot; in Jan. 1825, it was 7d., and

before that, 9*d*. The entries in the day-book, from which the accountant has made the account, are principally in my own hand.] The bad debts I took from the ledger. The returned goods are credited. I allowed interest on the outlay, which I ascertained from the various books. The balance of net profits is £13,173, up to last Midsummer. The outlay has increased during the last five years. In 1834, it is put down at £11,000; in 1831, at £7429. The premises (the patent being out) would not let at more than £150 a year; so that their value at twenty years' purchase would be £3000. The machinery is not costly, but the deterioration is very great in all fire processes. This account is a correct copy of the one made by me.

The advertisements.

Mr. T. W. *Fletcher* (solicitor of the petitioner) produced the "London Gazette" of the 9th, 12th, and 16th of October, 1838, the "Morning Herald," the "Morning Chronicle," and the "Times," of the 6th of October, and the "Wolverhampton Chronicle," of the 3rd, 10th, and 17th of October, containing the advertisement of the application; also the several original letters patent, and the specification. The manufactory is at Wednesbury; there is no paper published nearer than Wolverhampton. The only manufactories are at Wednesbury and in London. Some profits have been made by sales in Scotland and Ireland. The profits have decreased from £7300 to £5300 during the last year, which arises partly from the reduction in the selling price, and the corresponding decrease in the license dues. There are eight licenses in existence; most of them granted before the act for extending patents (*g*). They do not contain any additional clause applicable in case of the extension of the patent, but they were all aware of this application, and Mr. Russell intended to continue them on reduced terms. The first rent reserved was £25 per cent.; Mr. Russell had reduced them voluntarily, and is willing to agree to continue them on lower terms.

The assignment to Mr. Russell was put in; it contained a clause securing to Mr. Whitehouse an annuity of £300; it was suggested by one of their lordships, that as the extension of the term would occasion considerable additional profits, the inventor should have a larger annuity secured to him. Mr. *Fletcher* (after conferring with Mr. Whitehouse) put in an agreement, signed by him in behalf of Mr. Russell, to secure to Whitehouse an annuity of £500 during the existence of the patent (*h*).

(*g*) 5 & 6 W. 4, c. 83. Passed Sep. 10, 1835.

(*h*) Effect was given to this suggestion of their lordships, and the undertaking of Mr. *Fletcher* by the new letters patent, reciting that the judicial committee of the Privy Council had recommended an extension of the term of the said letters patent for six years, upon Mr. Russell securing the said annuity to Whitehouse. The securing

this annuity was further recited as part of the consideration of the grant of the new letters patent to Russell; and then there was among other provisos, a proviso that the said new letters should be void if the said Russell should not secure the annuity to Whitehouse, so long as the said new letters patent should last. The new letters patent bear date the 26th day of Feb. 1839.

Sir J. *Campbell*, A. G., on the part of the crown, said, that A. D., 1838. he did not feel it necessary to address their lordships, as he concurred in their opinion as to the originality and utility of the invention, and that the remuneration received had not been sufficient, and he begged to express his great satisfaction, that in consequence of the care and attention of their lordships, the author of so important and beautiful an invention would not go without his fair share of the benefit resulting from the extension of the patent.

Lord BROUGHAM: Their lordships having taken the whole of *Judgment.* this matter into account, retain the opinion which they have had impressed upon their minds from the very beginning, that this is an invention of extraordinary merit, doing the greatest honour to the inventor, and conferring great benefit on the community; founded in this eminent merit, being not merely the application of a known principle, embodying it in new machinery, and applying it to practical purposes, but involving the discovery of a new, curious, and most important principle, and at the same time applying that principle to a most important purpose. *The merit and utility of the invention.*

Their lordships have on the same side of the question taken into account (which it is material to mention) Mr. Russell's merit in patronizing the ingenious and deserving author of this invention, in expending money till he was enabled to complete this invention, and in liberally supplying the funds which were requisite for the purpose of carrying the invention into execution. *The merit of introducing the invention.*

On the other hand, their lordships have taken into mature consideration (which they always do in such cases) the profit made by the patentee, Mr. Russell standing in the situation of the inventor. They find, that it is not a case as in claims of other inventions of great ingenuity, and certainly of great public benefit, of actual loss in some, and of very scanty, if any, profit realized in others, but that a considerable profit has been realized, and, upon the whole, no loss. It is to be observed that that profit is not perhaps very much greater, if at all greater, than the ordinary profits on stock to that amount, employed without the privileges and extra profits of a monopoly. It is proper to consider that one great item of deduction from those profits also involves great pain, and anxiety, and suffering to the party, namely, the litigation to which he has been subjected, and which is generally found to be in proportion to the merit and the usefulness of a patent, namely, the temptation to infringe it, and to set at nought the right of the patentee, both in the Court of Chancery, when he applies for protection by injunction, and afterwards in a court of law, when he comes to claim compensation for damages; the temptation being, as I have stated, in proportion to the benefit of and the demand for the invention. That is an item which has to a considerable degree attracted *The amount of profit not greater than the ordinary profits on stock.* *The annoyances and anxiety of litigation to be considered.*

Judgment.

the attention of their lordships in this profit and loss account, which has been laid before them in the course of these transactions.

Taking the whole of the matter into consideration, the merits of the patentee, the merits of Mr. Russell, and the loss that has been sustained in the litigation, and setting against those, on the other hand, the profits which have been made, their lordships are of opinion that the term ought to be extended, and upon due execution being given to the undertaking⁽ⁱ⁾ which has been just given on behalf of the inventor, that the term ought to be extended for the period of six years.

Report accordingly.

SOUTHWORTH'S PATENT.

Title.

Letters patent, 19th April, 1823, to William Southworth, for "certain machinery, or apparatus, adapted to facilitate the operation of drying calicoes, muslins, linens, or other similar fabrics."

Specification.

My invention consists in the application of certain machinery or apparatus, adapted to perform the operation of hanging or suspending damp or wet calicoes, linens, or other similar fabrics (over a series of rails, or staves, situated in a stove or drying house), for the purpose of drying the same; the said machinery being also adapted to perform the operation of taking down or removing the said calicoes, muslins, linens, or other similar fabrics (from off the said rails or staves), after they have been sufficiently dried; by means of which invention a considerable saving of labour and expense may be effected in the operation of drying. I construct the above stove or drying house in a manner nearly similar to that at present in use; and I arrange the rails or staves (over which the cloth or fabric is intended to be hung or suspended) near to the upper part of the stove or drying house; I then construct a frame or carriage in such a manner as to be capable of moving freely upon guides or supports from one end of the drying house to the other, the said carriage being situated immediately above the range of rails or staves, but so as not to bear upon them; this carriage is furnished with proper supports for receiving certain rollers or boxes, upon the circumference of which rollers or boxes the wet cloth or fabric has been previously wound. The carriage is also furnished with certain cylinders or drums, which are

(i) See preceding note as to the mode of effecting this.

caused to revolve in such a manner as to draw or wind the *Specification.* wet cloth or fabric from off the aforesaid rollers or boxes in a regular manner; thus, if the frame or carriage, with its appendages, be slowly moved along upon its guides above the rails or staves, at the same time that the wet cloth or fabric is in the act of being drawn off the circumference of the rollers or boxes, by the operation of the revolving cylinders or drums before mentioned, the wet cloth or fabric will descend in the vacancies between the rails or staves, and will hang down in loops or folds, so as effectually to expose its surface to the action of the dry or heated air, and in order to suit the depth or height of the stove or drying house. The depth or length of the said loops or folds may be regulated or determined by the length of cloth or fabric, which would be given out by the revolving cylinders or drums, during the passage of the frame or carriage from one stave to the next. When the cloth or fabric has been hanging a sufficient length of time to become dry, it may be taken up again, or drawn off the rails or staves, and wound again upon the circumference of the rollers or boxes. This operation I perform by simply causing the frame or carriage, with its appendages of rollers and cylinders, to traverse slowly along the drying house in the contrary direction to what it moved during the operation of hanging the cloth, at the same time that the cylinders or drums are caused to revolve in a suitable direction for taking or winding up the cloth or fabric upon the circumference of the rollers or boxes; by this means the dry cloth may be wound evenly upon the circumference of the rollers or boxes, and removed from the machine. In some situations I find it advisable to vary the mode of arrangement, by causing the rails or staves (over which the cloth or fabric is intended to be hung) to be connected together with chains or ropes, somewhat in the manner of a rope ladder, being connected by endless chains or ropes, with a train, or wheels, or other well-known machinery, so as to be moved slowly along upon guides from one end of the stove or drying house to the other; in this last-mentioned arrangement, the frame or carriage containing the revolving cylinders or drums, for giving out and taking up the cloth remains stationary at one part of the stove or drying house. The operation of this machinery would be similar to the one before described with the traversing carriage; for as the cylinders or drums are caused to revolve and give out the cloth or fabric at the same time that the chain of rails or staves were moving slowly beneath the cylinder or drum, the cloth or fabric would descend between the staves and hang down in loops or folds, in a manner similar to the machine with the moving carriage. [Here follows the description of the drawings annexed.]

I have now described fully one mode of carrying my inven-

Specification.

tion into effect, and I do hereby declare, that I consider my claim of invention to extend to the application of the machinery or apparatus, as hereinbefore described, for the purpose of facilitating the operation of drying calicoes, muslins, or other similar fabrics; which machinery or apparatus is adapted, by means of a revolving and traversing cylinder or cylinders, situated over a series of stationary rails or staves, arranged in a stove or drying house in such a manner that the pieces of calico, muslins, linen, or other similar fabrics, may be previously wound upon the circumference, and by the revolving and traversing motion of the aforesaid cylinder or cylinders over the stationary rails or staves, or otherwise by the revolving motion of the cylinder or cylinders and the traversing movement of the rails or staves themselves, may be caused to descend in the spaces between the said rails or staves, and hang down in long loops or folds, in order to spread the pieces quickly, and expose their surfaces so as to facilitate the operation of drying the same; the said machinery or apparatus being also adapted to perform the operation of taking up or removing the said calicoes, muslins, linens, or other similar fabrics, from off the said rails or staves, and winding or rolling them upon the circumference of a roller or rollers, so that they may be removed from the machine after being sufficiently dried; at the same time I must observe, that the form and proportion of the different parts may be varied according to the situation, or discretion of the workmen employed in constructing the same; the materials of which the same may be made may also be varied, according to the circumstances of the case, without departing from the intent and object of my invention, as above described and set forth. In witness, &c.

HAWORTH *v.* HARDCASTLE.

[4 M. & Sc. 720; 1 Bing. N. C. 182.]

Cor. Sir N. Tindal, C.J.; Parke, J.; Gaselee, J.; Alderson, J.

E. T., 1834.

Not essential to the validity of a patent, that the invention should be useful for all the cases to which it is proposed as applicable. If a *scire facias* be pending, the court will be

This was an action for the infringement of the above patent, of which the plaintiff was the assignee. At the trial of the cause before Mr. Justice Alderson (M. Vac., 1833), it appeared that the old process of drying calicoes, linens, muslins, and the like fabrics, was performed in a place called a stove or drying house, about twenty feet high, or upwards, divided into three stages or floors, which were formed of rails or staves, traversing the building horizontally. The cloth intended to be dried was then carried

to the upper part of the drying house, and dropped by hand over the top row of staves, a man standing on the second row to guide its descent, and to give notice to the person above when sufficient had been allowed to fall to form a loop about six feet long: and when the upper compartment of staves was covered in this manner, the second and lower floors were similarly hung. This method, besides being expensive and tedious, was found very inconvenient, the number of loops and of staves preventing the free passage of the heated air in the stove. The object of the patent upon which this action was brought, was for the adaptation of certain machinery to supersede the labour of man in the process of hanging up and taking down the cloth, and to obviate the other inconveniences that were found to attend the old method of drying it.

It appeared upon the evidence, that prior to the year 1823, *Plaintiff's case.* some drying houses had been constructed with one row of staves only, placed in the upper part of the building; and also that a machine had some years before been used by *Ainsworth & Fogg*, for the purpose of letting down cloth from staves placed at the top of a drying house, consisting of a carriage similar to that used by the patentee, but having only one roller, on which the cloth was placed, and which was turned with a winch. *Fogg*, who was called as a witness, stated that he had used this machine for about six months, and then discontinued it, finding it of little use. The defendant had used three machines, one of which was purchased by him from the patentee, but was used without a license; the other two varied in some degree from the patent machine. The latter when traversing the staves was followed by a stop roller, to determine the length of the loop of cloth, by nipping or pressing it upon the edge of the stave, so as to hold it until the succeeding loop became of sufficient length to balance by its weight the preceding one. This was found not to answer the purpose intended, in consequence of the heat of the drying house causing the staves to warp; and therefore the inventor substituted a dropping-board or flapper; and in one of the machines used by the defendant, a bag of shot was the substitute for the stop roller. It was proved by several witnesses, and, amongst others, by the son of the patentee, that the machine did not answer the purpose of taking up some descriptions of cloth, by reason (as some of them stated) of the deception used in the manufacture.

On the part of the defendant it was contended, that the patent was void, on the grounds that the specification claimed as new the placing the staves or rails at the top of the drying house; that it claimed the invention of that which had previously been used by *Ainsworth & Fogg*, and that it was not adapted to the taking up the cloth, as stated in the specification. *Defendant's case.*

The learned judge left it to the jury to say, whether the invention was new and properly described in the specification—whether the machine was capable of taking up cloth for any useful purpose—and whether the machines used by the defendant were infringements on the plaintiff's patent, or fair improvements on the original invention of *Ainsworth & Fogg*.

Special verdict.

The finding of the jury was as follows:—The jury find that the invention is new, and useful upon the whole; and that the specification is sufficient for a mechanic, properly instructed, to make a machine, and that there has been an infringement of the patent; but they also find that the machine is not useful in some cases for taking up goods.

A verdict was thereupon entered for the plaintiff, leave being reserved to the defendant to move to set it aside, and enter a nonsuit.

Rule nisi.

Stephen, Sergt., accordingly obtained a rule *nisi* to enter a nonsuit on the grounds urged at the trial, and also on the ground that the finding of the jury in effect negatived the usefulness of the invention for which the patent was obtained, to the extent stated in the specification; and also for a new trial, on the grounds that the verdict was against evidence, and that the jury had been misdirected—contending that the jury should have been directed to consider whether *Southworth's* invention was new, regard being had to that of *Ainsworth & Fogg*; and whether the plaintiff's machine was adapted to the taking up of goods according to the specification, that being a material part of the improvement claimed (*k*).

Wilde and *Coleridge*, Serpts., showed cause against the above rule. The substance of the patent was an invention of machinery adapted to facilitate the drying of the goods mentioned in the specification; and the patent is not avoided, because the inventor has gone on to state that the machinery is also adapted to the taking up the cloths when dry. In the cases cited on the part of the defendant, the patents were held to be void, because the several machines, or the processes described in the specification, were utterly unadapted to the accomplishment of the purposes for which they were intended. Here the main object which the patentee professed to attain has been accomplished; as far as regards the letting down the cloths, it is admitted that the machine is faultless; and it is constructed and worked precisely in the mode pointed out in the specification, with the exception of a flapper being substituted for the stop roller, which was found not to work well, where, in consequence of the staves or rails warping, an uneven surface was

(*k*) The learned counsel in moving for the rule cited the cases of *Turner v. Winter*, 1 T. R. 602, and *ante*, 77; *Bloxam v. Elsee*, 6 B. & C. 169;

Campion v. Benyon, 6 B. M. 71; *Rez v. Wheeler*, 4 B. & Ald. 541. See *ante*, 83.

sented. Even suppose the taking up to be an essential part A.D. 1834. the invention, the finding of the jury does not negative the general usefulness of the machine in this particular, though it states it not to be useful in some cases—evidently pointing to those cases adverted to by the witnesses, viz. where the goods were fraudulently manufactured (*l*).

Stephen, Sergt. in reply, in addition to the points contended on showing cause, objected that the patent was taken out for machinery, whereas the specification showed the invention consisted in the application of machinery, or in a method of using the apparatus.

Cur. adv. vult.

LINDAL, C.J.: This case has been brought before us upon Judgment. motion for a rule, either to enter a nonsuit upon leave granted for that purpose by the judge at the trial, or for a new trial on the ground of misdirection of the learned judge who directed the cause, and also that the verdict of the jury had been against the weight of the evidence. Upon the discussion which took place upon the original motion, the court were satisfied that the direction of the learned judge was right, and the rule was consequently granted upon the two remaining grounds. The motion for entering a nonsuit was grounded on two points; first, that the jury had, by their special finding, negatived the usefulness of the invention to the full extent of what the patent and specification had held out to the public; secondly, that the patentee had claimed in his specification the invention of the rails or staves over which the cloths were hung, and that at all events, the placing them in a tier at the upper part of the drying room. As to the finding of the jury, it was in these words: "The jury find the invention is new and useful upon the whole; and that the specification is sufficient for a mechanic properly instructed, to make a machine, and that there has been no infringement of the patent; but they also find that the machine is not useful in some cases for taking off goods." The specification must be admitted, as it appears to us, to describe an invention to be adapted to perform the operation of removing the calicoes and other cloths from off the rails or staves after they have been sufficiently dried. But we think we are not warranted in drawing so strict a conclusion from this finding of the jury as to hold that they have intended to negative, or that they have thereby negatived, that the machine was useful in

A finding of the jury that the invention is useful on the whole, but fails or is not useful in some cases, is not a ground of nonsuit.

) The case of *Crossley v. Beverley*, ante 110, relied on as an authority to show that the direction to give directions in the specification, as matters which are within the knowledge of a person capable of carrying out the invention, will not invalidate the patent. Also the

case of *Lewis v. Marling*, post 490, where it was expressly held, that the fact of one part of an invention not being useful, will not vitiate the grant. The same case was also cited on the question of novelty and user, as to which see ante 126, n.

Judgment.

the generality of the cases which occur for that purpose. After stating that the machine was useful on the whole, the expression, that 'in some cases it is not useful to take up the cloths,' appears to us to lead rather to the inference that in the generality of cases it is found useful. And if the jury think it useful in the general, because some cases occur in which it does not answer, we think it would be much too strong a conclusion to hold the patent void. How many cases occur, what proportion they bear to those in which the machine is useful, whether the instances in which it is found not to answer are to be referred to the species of cloth hung out, to the mode of dressing the cloths, to the thickness of them, or to any other cause distinct and different from the defective structure or want of power in the machine, this finding of the jury gives us no information whatever. Upon such a finding, therefore, in a case where the jury have given their general verdict for the plaintiff, we think that we should act with great hazard and precipitation if we were to hold that the plaintiff ought to be nonsuited upon the ground that his machine was altogether useless for one of the purposes described in his specification (*m*).

A patentee to be presumed not to intend to claim things which he must know to be in use.

As to the second ground upon which the motion for a nonsuit proceeded, we think, upon the fair construction of the specification itself, the patentee does not claim as part of his invention, either the rails or staves over which the calicoes and other cloths are to be hung, or the placing them at the upper part of the building. The use of rails and staves for this purpose was proved to have been so general before the granting of this patent, that it would be almost impossible *à priori* to suppose that the patentee intended to claim what he could not but know would have avoided his patent, and the express statement that he makes, "that he constructs the stove or drying house in a manner nearly similar to those which are at present in use, and that he arranges the rails or staves on which the cloth or fabric is intended to be hung or suspended, near to the upper part of the said stove or drying house," shows clearly that he is speaking of those rails or staves as of things then known and in common use, for he begins with describing the drying house as nearly

(*m*) The above decision is in strict conformity with a preceding decision of the Court of Queen's Bench in the case of *Lewis v. Marling*, where it was held not to be essential that all the parts of an invention should be useful, *post* 490; and with a subsequent decision of the Court of Exchequer in *Morgan v. Seaward*, where it was said the court does not mean to intimate any doubt as to the validity of a patent for an entire machine or subject, which is, taken altogether, useful, though a part or parts may be useless, always supposing no false suggestion: *ante* 197. See also in *Crossley v. Beverley*, *ante* 110. The above cases are clearly

distinguishable from those in which the purpose wholly fails; that is, those in which the invention as described is useless, as in the case of *Maudslayi v. Parker*, where it appeared that the object of the invention—viz. the construction of a hammer for fowling pieces and small arms, which should let out the air from the barrel, and cause a communication between the powder in the pan and the powder in the barrel, without at the same time letting out the powder—wholly failed, the fact being that the powder and air passed through the same hole. *Ante* 192.

similar to those in common use; he gives no dimensions of the rails or staves, no exact position of them, nor any particular description by reference, as he invariably does when he comes to that part of the machinery which is peculiarly his own invention. There can be no rule of law which requires the court to make any forced construction of the specification, so as to extend the claim of the patentee to a wider range than the facts would warrant; on the contrary, such construction ought to be made as will, consistently with the fair import of the language used, make the claim of invention co-extensive with the new discovery of the grantee of the patent. And we see no reason to believe that he intended under this specification to claim either the staves, or the position of the staves as to their height in the drying house, as a part of his own invention.

The specification should be read so, as, consistently with the fair import of language, will make the claim co-extensive with the actual discovery.

As to that part of the rule which relates to the granting of a new trial on the ground of the former verdict being against evidence, this case comes before us under such peculiar circumstances, that unless we were thoroughly satisfied that the verdict was wrong, we hold that we ought not to interfere. The trial took place before a special jury, it occupied two days of close and laborious investigation; the questions, whether the invention was new, and whether there was any infringement, were specifically and pointedly left to the jury; the jury found their verdict for the plaintiff, which verdict, we are authorised to say, was entirely to the satisfaction of the learned judge who presided at the trial. These circumstances alone would be sufficient in ordinary cases to induce the court to refuse to interfere.

But in addition to these strong grounds for the course we take on this occasion, it should be observed that this is the case of a patent granted in the year 1823, having therefore now only three years longer to remain in force; and further, the defendant or some other persons have, since this action has been tried, procured a *scire facias* to avoid the patent. As this is a mode of trial in which the precise objections to the patent may be raised by the pleadings, and the questions made on the former trial may be carried by writ of error to a higher tribunal, we do not feel ourselves called upon, unless upon a much stronger case than the present, to take away from the plaintiff the benefit of the verdict which the jury have given him. If this further proceeding by *scire facias* had not been instituted, and now pending, we might have felt ourselves called upon to discuss and consider one objection advanced by the learned counsel for the defendant, viz. that the patent is taken out for machinery, whereas the specification is made for the application of machinery, or for a method only. But as this objection as well as the others can receive a more solemn decision upon the occasion to which we have adverted, we shall offer no opinion on it now, which we think we are the less called upon to do on

The fact of a *scire facias* pending, is a ground for refusing a nonsuit on an objection to the patent.

this occasion, as it was not an objection taken upon the trial of the cause before the jury, but for the first time raised when the defendant was heard in support of his rule.

Rule discharged (a).

IN THE PRIVY COUNCIL.

Jan. 10, 1837.

SOUTHWORTH'S PATENT.

Extension of term of patent.

This was an application, by the assignees of the patentee and of certain persons claiming under an original license from the patentee, for an extension of the term of the above patent.

Stephen, Sergt., appeared in support of the petition, and in reply to a question from the court said, that all the parties having licenses under the letters patent had been seen, and arrangements made with them.

The papers (o) containing the advertisements were put in;

(n) *Practice as to hearing rules and staying proceedings pending a scire facias.*—After the trial in the above case, a *scire facias* had been sued out by the defendant to repeal the patent, and the above rule to show cause why a nonsuit should not be entered having been obtained, a further rule was obtained to show cause why that rule should not be enlarged to another term, in order that the *scire facias* might be tried first, and that the defendant or the question might not be prejudiced by a previous decision of the rule for entering a nonsuit. It appeared that the action had been brought in pursuance of an order of the Vice Chancellor, bearing date the 1st of March, 1832, and the trial took place after Michaelmas Term, 1833, and that the patent would expire in 1837. The affidavits in support of the rule stated, that the proceedings by *scire facias* were commenced with the full intention of going to trial, and not for the purpose of delay.

Sir N. Tindal, C. J.: In the exercise of our discretion, I think we ought not to make this rule absolute. It appears that the patent in question was granted so long ago as the year 1824; and that the order of the Vice Chancellor, upon which the present action was brought, was made on the 1st of March, 1832, more than two years since. After so long a delay, and coming now at the last moment, when the rule for entering a nonsuit or for a new trial is ripe for argument, I think the application is not one that deserves favour. The plaintiff has, in strict justice, a right to go on in his action to judgment; and even if the *scire facias* avail, and the patent be repealed, that will not necessarily prevent us from giving judgment on the objections taken at the trial of this cause.

Parke, J.: I think no sufficient ground has

been shown for the interposition of the court. The argument on the rule has been postponed merely for the accommodation of the bar; and the *scire facias* is not yet served. Notwithstanding the possibility of our judgment in this case being at variance with the judgment of the Court of King's Bench on the trial of the *scire facias*, that is no ground for delaying the discussion; for, *non constat* that our judgment is therefore erroneous.—Rule discharged. *Haworth v. Hardcastle*, 4 M. & Sc.

In the recent case of Walton's patent, there had been two actions in the Court of Common Pleas, in both of which the plaintiff had been successful; there had been a *scire facias* in which the verdict was for the crown; the Court of Queen's Bench had granted a rule to show cause why there should not be a new trial on the *scire facias*; there was a bill of exceptions pending in the latter of the former actions; a third action was pending in the Court of Common Pleas; Sir N. Tindal, C. J., on summons at chambers, stayed the proceedings in this third action.

Lord Lyndhurst, L. C., stayed proceedings on a *scire facias*, sued out to repeal the English patent, during the pendency of proceedings in the House of Lords on the Scotch patent; the term of the English patent having expired. *R. v. Neilson*.

(o) These were the "London Gazette," of the 28th of June, and of the 1st and 5th of July; the "Morning Chronicle," of the 21st, the "Globe," of the 24th, and the "Times," of the 29th of June; the "Manchester Guardian," of the 11th, 18th, and 25th of June, and the "Manchester Courier" and "Bolton Free Press," of the same date. The advertisement stated the application to be by the patentee, his assignees, and the assignees of some other parties.

also the assignment by way of mortgage to *Haworth*; the original deed of license from the patentee to *Slater*, under which some of the petitioners claimed as assignees; also the letters patent and specification, the injunction, the proceedings in the action at law, and under the two bankruptcies, and accounts of the licenses and of the expenditure. Jan. 10, 1837.

It appeared in evidence that twenty-two licenses were in existence, and that all the parties had been seen, and were to have their licenses on the same terms in the event of the term of the patent being extended. That the number of cubic yards of stove paid for under the licenses was 1833. That the trade and all the licensees had been apprised of the application, and that some licenses had been taken since the proceedings on this petition had commenced. That the amount received for infringements and by way of license was £8915.

Evidence was also given as to the expense incurred and experiments made by the patentee in perfecting his invention, in which from £1500 to £2000 was expended, and great interruption of his business occasioned; that at the time of the bankruptcy of the parties who had the original license, the trade were on the point of taking licenses, but they took advantage of the bankruptcy, and refused to enter into any arrangements until after the end of the legal proceedings. Evidence was given as to the utility of the invention; the saving of time, labour, and expense, and the superiority of the work; one-half the amount of the cost for bleaching being in some cases saved. That the modern improvements in the chemical parts of bleaching admit of these operations being carried on to a very extensive scale, which, until the invention of Mr. Southworth, were limited by the drying. According to the former method, the cloth was much injured by the handling.

LORD BROUGHAM: Their lordships are of opinion, that the merits of this invention are quite understood. They are also of opinion, that it has been proved that the benefit which the patentee might otherwise naturally be expected to obtain from his specific patent has not arisen, in consequence of the misfortunes of the patentee and of those connected with him, as agents and otherwise, in the management of this patent; and they have also taken into consideration in some degree the circumstance of the nature of the invention being such that it would not be likely to come into immediate use. Upon these considerations they are induced to report to his Majesty their opinion, that it would be right, if his Majesty should think fit, to give an extension to the time granted for the period of five years, at the expiration of the term of the patent already granted. That patent was granted in 1823, therefore it will be five years from the 19th of April, 1837. The new letters patent must be, by the statute, granted to the party or parties who

Judgment.
The nature of the invention as affecting its introduction into use to be considered.

The new patent must be to the assignee.

have a legal interest in the letters patent now existing. Of course the parties must take care that the right party or parties alone have the patent, otherwise it will have no legal effect.

Stephen, Sergt. : Those having the legal estate.

Lord BROUGHAM : Those in whom the subsisting patent is vested (*p*). Report accordingly.

LEWIS'S PATENT.

Title.

Letters patent, 15th Jan. 1818, to J. Lewis, W. Lewis, and William Davis, for "improvements on shearing machines, for shearing or cropping woollen or other cloths, that may require such process, the same being further improvements on a patent obtained by J. Lewis, for 'an improved shearing machine,' dated 27th July, 1815."

LEWIS AND ANOTHER v. DAVIS.

Hil. V., 1829.

Cor. Lord Tenterden, C. J.

[3 Car. & P. 502.]

If the shearing of cloth from list to list by shears be known, and the shearing it from end to end by means of rotary cutters be also known, and a person construct a machine to shear from list to list by means of rotary cutters, this is a new invention, and will entitle the inventor to main-

This was an action for the infringement of the above patent; the specification claimed as the plaintiffs' invention—First, the application of the flat spring for directing and pressing the cloth to the cutting edges. Second, the application of the triangular steel wire on the cylinder. Third, a proper substance to brush the cloth. Fourth, to shear with rotary cutters from list to list, in the manner specified (*q*).

F. Pollock for the defendant. As these are alleged to be improvements on a former machine, for which a patent was granted in the year 1815, the specification of that patent must be produced. How can the jury say that these are improvements without they know what the original machine was?

(*p*) The new letters were accordingly granted to E. Haworth for five years.

(*q*) The defendant had a patent for an improved shearing machine, with certain novelties of construction; among others, the rotary cutter had a lateral motion, by which the operation of shearing was performed in a superior manner. The stripes of plush were placed between the spiral blades of the rotary cutter, and answer the

purpose of brushes to raise the pile as the cylinder went round; and so bring it into contact with the edges of the cutter. The substantial part of the invention was shearing from list to list by a rotary cutter. It was admitted that the only infringement was in respect of the use of the rotary cutter. For a description and plate of the respective inventions of the plaintiffs and defendant, see 2 Newt. Lon. J. 255, 2d Series.

Rotch for the plaintiffs. I submit that that is unnecessary, ^{tain a patent for it.} because the plaintiffs' specification is perfect; any one who reads that may make the machine, without looking to any earlier specification.

Lord TENTERDEN, C.J.: When these parties applied to the crown, in the year 1818, they might have applied for a patent for their invention, without reference to any thing that had gone before. Now, that they have not done; on the contrary, they profess to have improved a machine already known. That machine may be used by any one after fourteen years from the earlier patent, but any new matter which is included in the present patent is not open to every body, till fourteen years from a later period. It is, therefore, material to show what are the improvements contained in the plaintiffs' patent. Now I cannot say what are improvements upon a given thing, without knowing what that thing was before; for aught I know, all the things mentioned in the plaintiffs' specification may have been included in the former specification.

In an action for an infringement of a patent, professing to be an improvement on a former patent, the specification of that former patent must be read. But it is not material whether a machine made according to that specification of the first patent would be useful or not, if it be shown that a machine constructed according to the subsequent patent is useful.

The specification of the patent of 1815 was read. That was for a machine with rotary cutters, which were to shear the cloth from end to end.

It appeared that the defendant's alleged infringement of the patent consisted in making a machine with rotary cutters, to shear from list to list, but that he had not used either the first, second, or third of the improvements stated in the plaintiffs' specification. It was also proved that shearing from list to list by machinery to carry shears, was known before the date of the plaintiffs' patent, and also that rotary cutters to shear the cloth from end to end were known before that time. It was proved that the plaintiffs' improvements were all useful.

F. Pollock for the defendant. The old mode of shearing was from list to list, by machinery to carry shears in that way. The plaintiffs have combined a rotary cutter, which was a thing well known before, with three other things, which the defendant has not infringed upon. Now I submit that the rotary cutter being old, we had a right to use it in shearing from list to list, which was the old way of shearing by means of shears, though perhaps rotary cutters had only been used in shearing from end to end. The defendant has not infringed on any of the three things which the plaintiffs claim. The plaintiffs have no right to claim the going from list to list as their invention, and we have only sheared in that way with a rotary cutter instead of shears, that species of cutter being old, and not of the plaintiffs' invention.

Lord TENTERDEN, C.J.: It is not material whether a machine made under the patent of 1815 is useful or not, as it is shown that the plaintiffs' machine is highly useful. The case stands thus; it appears that a rotary cutter to shear from end

The shearing from list to list by a rotary cutter the subject-matter of letters patent, independently of the particular means.

to end was known, and that cutting from list to list by means of shears was also known. However, if before the plaintiffs' patent the cutting from list to list, and the doing that by means of rotary cutters, were not combined, I am of opinion, that this is such an invention by the plaintiffs as will entitle them to maintain the present action (r).

Verdict for the plaintiffs. Damages 1s.

In the ensuing term, *F. Pollock* moved for a new trial on affidavits, but no question was made as to either of the points decided at the trial. Rule refused.

LEWIS & ANOTHER v. MARLING.

Trin.V., 1829.

Cor. Lord Tenterden, C. J.

[4 Car. & P. 52.]

A party took out a patent for an improved shearing machine, to shear woollen cloths, and claimed four things as his invention: one of them was, a proper substance to brush the cloth. In describing the machine in the specification, he directed plush to be used for this purpose, but he nowhere stated that this was an essential part of his machine. Before the time of this party's invention some kind of brush had been uniformly used, but it was

This was another action for an infringement of the same patent as in the preceding case.

Scarlett, A. G., for the plaintiffs, contended that the jury ought to give considerable damages, as the validity of the patent had been litigated in that case.

The specifications of the two patents (s) were put in, and read. In the specification of the second patent, upon which this action was brought, the plaintiffs claimed as their invention four things (t); one of which was "a proper substance to brush the cloth," and this was described in the specification as follows:—"A narrow strip of plush is fixed on the surface of the cylinder, parallel with the wire, to answer the purpose of a brush for raising up the wool, which is to be shorn off the cloth; or, instead of the plush, bristles may be inserted on the cylinder."

Evidence was given of the novelty of the invention, and of the defendant's infringement of the patent.

A witness stated, that previous to the use of the plaintiffs' machine, some substance had been always used to raise up the wool to be shorn, but that it was found that, in the plaintiffs' machines, it was unnecessary, if more than one cutter at a time

(r) This direction of the learned judge is founded on the assumption, that the shearing from list to list by a rotary cutter is of the essence of the plaintiffs' invention, and that the shearing cloth in that manner would be an infringement of their patent, independently of the particular means employed. The plaintiffs being the in-

ventors of that mode or principle of shearing, the precise arrangements are of secondary consideration.

(s) According to the ruling of the learned judge in the preceding case. *Ante*, 489.

(t) See *ante* 488, & n. q.

was used on the cylinder; and that, in point of fact, this plush never was used. He also stated, that the plaintiffs had only made one machine which had it; and that out of one thousand and more of their machines that they had sold, none of them had any plush, or any other substance, to raise the wool.

F. Pollock, for the defendant: I submit that the plaintiffs must be nonsuited. The plaintiffs claim this plush as a part of their invention, and its application is minutely described in the specification. Now, the witness says, that the plaintiffs never even sold a single machine that had this plush applied to it; and I apprehend, that where a patent is taken out for a machine consisting of several parts, and one of them is wholly useless, the patent is void. It may be said, that it is a hardship that the party should be obliged to make a specification before he has completed his invention; but to do that, time is always given: I admit, that if a machine is described in general, it would be no objection that some particular part might be made better, but here this plush is claimed as a specific invention.

subsequently ascertained, that with this machine no brush was necessary. Held, that this did not invalidate the patent. Before a party took out a patent for a machine, a model of a similar machine was made, unknown to him, and a machine was begun to be made from it, but no similar machine was ever used in this country before the patent. Held, that this was not sufficient to defeat the patent.

Scarlett, A. G., for the plaintiffs: The argument on the other side is, that if a man makes an improved machine, combining with it something that was always thought necessary, and it be afterwards found that his improvement is so good that it dispenses with this thing that was always thought necessary, he is to lose his patent. The public is not deceived, and the only objection now is, that it was found, a year after the taking out of the patent, that if more than one cutter were applied the plush was unnecessary.

Brougham, on the same side. We say, that one of our novelties is the using of a brush of plush upon the cylinder, and that is an improvement upon the older modes of brushing; in the same way we say, that our rotary cutters are an improvement on shears used by hand.

F. Pollock, in reply: If the thing was beneficial at the time of the invention, I admit that it will not vitiate the patent that it becomes of no use by means of something invented afterwards; but here, the patentee claims as an invention a thing that with his machine is useless.

Lord TENTERDEN, C. J.: This is a patent for an improved machine for shearing woollen cloths, which is to be effected by means of rotary cutters going from list to list. In his specification the plaintiff claims several things as of his invention, one of them being the application of a proper substance to brush the cloth. It appears, that before this patent the universal practice was to raise the wool by means of some kind of brush: here the patentee claims the exclusive use of this plush for that purpose, but not as an essential part of his machine. He claims it as his invention, and states it to be a novel mode of

The claiming to use a particular substance, which is afterwards abandoned, will not vitiate a patent, if the public are not misled or deceived.

doing that which was always done before either by a brush or by some other means. There was a case of a chemical compound, where the party mentioned in his specification some ingredient that he did not use, and the patent was held to be void (u); but there the party deceived the crown, and I think that that case is quite distinguishable from the present. Here the party says, this is a part of my machine, but he no where says that it is essential. I think, therefore, that there is no weight in the objection.

Defendant's case.

The defence was, that the mode of shearing from list to list, by means of rotary cutters, was not new at the time of the plaintiffs' patent; and it was proved, that in the year 1811, a specification was enrolled in America, for a machine to shear cloth from list to list by means of rotary cutters, and that in that year a model of an exactly similar machine was brought to England, and exhibited to three or four persons. It was also proved, that in the year 1811, Mr. Thompson, a manufacturer in Yorkshire, employed workmen to make a machine from the American specification, and that they had set about it, but that, in consequence of the Luddite riots, Mr. Thompson was afraid to have it completed. However, in answer to this, it was shown that, after the riots had ceased, the machine was left unfinished, and Mr. Thompson bought the plaintiffs' machine (x).

Lord TENTERDEN, C. J.: The object of the plaintiffs' patent is a method of shearing from list to list by means of rotary cutters, and if the case rested on the evidence on the part of the plaintiffs, there is no doubt that the plaintiffs' was the first machine of this kind used in this country; but on the part of the defendant it is contended, that there is such a want of originality and novelty in the plaintiffs' machine, as will prevent their recovering in this action.

The introducer is the inventor; it is sufficient to support a patent, that the invention be new as to general use and public exercise.

It is no doubt incumbent on the plaintiffs to show that their machine is new, but it is not necessary that they should have invented it from their own heads; it is sufficient that it should be new as to the general use and public exercise in this kingdom. If it were shown that the plaintiffs had borrowed from some one else, then, of course, their patent would fail. To show that the machine was not new, evidence is given that a model has been seen by three or four persons, and that the making of a similar machine was begun; but it appears to me,

(u) The case supposed to be referred to is *Turner v. Winter*, 1 T. R. 602, & ante 77.

(x) It is stated in 4 Newton, Lon. J. 146, 2d Series, to have been given in evidence at the trial, that a person named Jones, a cloth-dresser, employed for several months several machines of this kind, having rotary cutters, shearing from list to list, in his factory at Bermondsey, nearly twenty years ago. Evidence of a similar kind is stated

by Mr. Godson to have been given on the above trial. *Godson on Patents*, 43, 2d Ed. This fact is not adverted to by the Lord Chief Justice, or as the argument, and if the evidence were believed it shows an abandonment of the mode, and raises a strong presumption, that, as compared with what the plaintiffs had done, this was only an experiment. See *per* Sir N. Tindal, C. J., post 508, and next note.

that the defendant has failed to prove that such a machine was generally known or generally used in England, before the taking out of this patent by the plaintiffs (y).

Verdict for the plaintiffs. Damages £200 (z).

LEWIS & ANOTHER v. MARLING.

Cor. Lord Tenterden, C. J.; Bailey, J.; Parke, J.

[10 B. & C. 22; 4 Car. & P. 57.]

Motion for a new trial.
M. T., 1829.

Case for infringing a patent granted to the plaintiffs for improvements on shearing machines, for shearing or cropping woollen and other cloths. Plea, not guilty. At the trial before Lord Tenterden, C. J., at the Westminster sittings after last Trinity Term, it appeared that the patent in question was granted in 1818, and the plaintiffs in their specification, which was accompanied by a drawing, claimed as their invention, thirdly, the application of a proper substance, fixed on or in the cylinder A, to brush the surface of the cloth to be shorn; and fourthly, the described method of shearing cloth across from list to list by a rotary cutter. The brush for the surface of the cloth was soon found to be useless, and the plaintiffs never sold any machines with it. On this ground the defendant contended that they had claimed too much, and therefore the patent was void. As to the fourth thing claimed, the defendant contended that it was not new, and proved that a similar machine was in use at New York twenty years ago, and that a specification of it was sent over in 1811, to one Thompson, residing at Leeds, who employed two engineers to manufacture a machine from it; but this was never finished, in consequence of the disturbances made by the Luddites. This specification was shown to several persons, but the machine was never brought into use. It appeared also that in 1816, a model for a machine to shear from list to list, by means of a rotary cutter, was brought over from

Where a patentee of an improved machine claimed as his invention a part of it which turned out to be useless, held that this did not vitiate the patent, the specification not describing it as essential to the machine.

Where it appeared in evidence, that the patentee himself invented and brought into use the machine for which the patent was granted, but before that time several other persons had seen a model and a specification of such a machine, which were brought over from America; held, that the patentee was,

(y) This direction of the learned Chief Justice as to a general use and knowledge has been disputed on high authority. It appears admitted that the use or exercise must be public, but it is much doubted whether the use or exercise need be at all general in order to vitiate a subsequent patent. See in *Cornish v. Keane*, post, and *Carpenter v. Smith*. See the observations of the same learned judge on the motion for a new trial.

(z) I am not aware of any subsequent case in

which a plaintiff has recovered more than nominal damages. The damages are generally obtained by way of account in equity; but there is no reason why real damages should not be recovered at law, as has been done in several earlier cases. The provisions of the act 5 & 6 W. 4, c. 83, s. 3, giving treble costs in second actions, which provisions are now, however, substantially repealed by 6 Vict. c. 97, acted as a penalty against subsequent infringers, and in lieu of damages.

nevertheless, to be considered the inventor within the meaning of the statute 21 Jac. 1, c. 3, s. 6, no machine having been manufactured and brought into use from the model and specification, and there being no evidence that the patentee had ever seen them.

America by one *Smith*, and he showed it to three or four persons in his manufactory, but no machine was ever made from it, nor was it publicly known to exist, and *Smith* always used machines manufactured by the plaintiffs. It appeared also, that many years ago one *Coxon* had made a machine to shear from list to list, which was tried by a person called on behalf of the defendant, but he did not think it answered, and soon discontinued the use of it (a). For the defendant it was contended that this evidence deprived the plaintiffs of the right to a patent, as their invention was not new. Lord *Tenterden*, C. J., told the jury, that the first objection failed, as the plaintiffs had not described the brush to be attached to the cylinder as an essential part of their invention, and therefore the patent might be good, although further investigation proved that part of the invention to be useless. And as to the other, that as the invention of the machine for shearing from list to list by a rotary cutter had not been generally used or known in this country, the plaintiffs might be considered the inventors within the meaning of the statute 21 Jac. 1, c. 3, s. 6, notwithstanding the specification and the model which had been brought over from America, and the making of a machine to work in that manner by *Coxon*; and his lordship left to the jury the questions, whether it had been generally known, and whether the patent had been infringed by the defendant. The jury found a verdict for the plaintiffs; and now—

F. Pollock moved for a rule *nisi* for a new trial, on the grounds urged at the trial. First, the patent was void on the ground that the plaintiffs claimed as part of their invention the application of a brush for the purpose of raising the nap on the cloth. That proved to be entirely useless, if not prejudicial, and, in fact, they never sold any machines with the brush attached. The public, therefore, would be misled, if at the expiration of the time for which the patent was granted, they attempted to manufacture a machine on the patent principle. The answer given to this objection at the trial was, that the specification did not describe the brush as an essential part of the machine. But that is no answer in law, the defendant has a right to consider the case as if the patent had been taken out for that only. In every patent all that is claimed must be new and useful. *Turner v. Winter* (b), *Crompton v. Ibbotson* (c). [*Parke, J.*: The specification there stated that a certain article would produce the desired effect. The evidence was, that nothing else would do it.] Secondly, Lord *Tenterden* did not leave the question of novelty to the jury in the manner warranted

(a) See ante 402, n. 2, as to other evidence of this same kind having been given.

(b) 1 T. R. 609; ante 77.

(c) Dan. & Lloyd, 33; ante 83.

by former decisions. The substance of the invention was the application of a rotary cutter in shearing cloth from list to list. The evidence was, that thirty years ago one *Coron* made such a machine; in 1811 a specification, in which that principle was stated, was brought over from America, and a machine commenced, but never finished. In 1816 a model of such a machine was brought over, and although no machine was made from it, the model was shown to various persons. The person who brought it over could not, after that, have maintained a patent for it; and if he could not, it is difficult to understand why the plaintiffs should be in a better situation. [*Parke, J.*: It might be new in use, although the principle was known before.] Affidavits were then produced as to the knowledge of that whereof the plaintiffs claimed to be inventors before the patent was granted.

Lord TENTERDEN, C. J.: I am of opinion that we ought not to grant a rule to disturb the verdict in this case. It is contrary to the usual practice to grant a rule in such a case on affidavits. If the facts disclosed in them are sufficient to vitiate the patent, it may be repealed by *scire facias* (d). As to the objection on the ground that the application of a brush was claimed as a part of the invention, adverting to the specification, it does not appear that the patentee says the brush is an essential part of the machine, although he claims it as an invention. When the plaintiffs applied for the patent they had made a machine to which the brush was affixed, but before any machine was made for sale they discovered it to be unnecessary. I agree, that if the patentee mentions that as an essential ingredient in the patent article, which is not so, nor even useful, and whereby he misleads the public, his patent may be void; but it would be very hard to say that this patent should be void because the plaintiffs claim to be the inventors of a certain part of the machine not described as essential, and which turns out not to be useful. Several of the cases already decided have borne hardly on the patentees, but no case has hitherto gone the length of deciding that such a claim renders a patent void, nor am I disposed to make such a precedent.

The next point was, an alleged misdirection on my part to the jury. To impugn the novelty of the invention, evidence was given that one *Coron* had previously made a machine for shearing from list to list; but it was not approved of, and never came into use. Another piece of evidence was, that a model had been sent over from America and exhibited to a few persons, but no machine was made from it, and the very persons who had the model bought and used machines manufactured

New facts, which would be grounds for repealing a patent, will not be received on a motion for a new trial.

If any thing claimed as essential turn out to be useless, the patent is voidable, but *aliter* if not described as essential.

(d) See observations to the same effect, in *Cornish v. Keene*, post.

He is not a true and first inventor within the meaning of the statute who has seen the model or specification of a machine subsequently patented, but which had not been in public use and operation.

by the plaintiffs. It was also proved that a specification had been brought over from America, and two persons employed to make a machine from it. But that was never completed, so that until the plaintiffs' invention came out, no machine was publicly known or used here for shearing from list to list. I told the jury that if it could be shown that the plaintiffs had seen the model or specification, that might answer the claim of invention, but there was no evidence of that kind, and I left it to them to say, whether it had been in public use and operation before the granting of the patent. They found that it had not, and I think there is no reason to find fault with their verdict.

BAYLEY, J.: I think there should be no rule. However, our refusing a rule will not hinder the defendant from applying for a repeal of the patent, if he should be so advised. To support a patent it is necessary that the specification should make a full disclosure to the public. If the patentee suppresses any thing, or if he misleads, or if he does not communicate all he knows, his specification is bad. So, if he says that there are many modes of doing a thing, when in fact one only will do, this will also avoid the patent; but if he makes a full and fair communication, as far as his knowledge at the time extends, he has done all that is required. Mr. Pollock objects to that part of the specification which respects the use of the plush. Now, at the period when this specification was made, the plush was in use, and there is no reason to believe that this patentee did not think it was a useful part of the machine. His patent is for an instrument where something of that kind was always thought material, and I am of opinion that the subsequent discovery that the plush was unnecessary, is no objection to the validity of the patent. If the party knew that it was unnecessary the patent would be bad, on the ground that this was a deception, but if he thought it was proper, and only by a subsequent discovery finds out that it is not necessary, I think that it forms no ground of objection.

The subsequent discovery that something described may be dispensed with, will not vitiate a patent, if there has been no deception.

Another ground of objection is this—it is said that communications were made from America; if it had been shown that the plaintiff had seen the model, and had borrowed from it, he would not have been the true inventor, and would, therefore, have misled the crown: but if I make a discovery, and am enabled to produce an effect from my own experiments, judgment, and skill, it is no objection that some one else has made a similar discovery by his mind, unless it has become public. So if I introduce a discovery, *bona fide* made, I may have a patent for it (e), though a person might have received privately a com-

The party introducing the invention into public use is the true and first inventor.

(e) This principle of the patent law, that the introducer is the party entitled to the protection and privilege of letters patent, has not been so distinctly stated in any other modern case. h

munication from abroad, which would have enabled him to have made the machine. As to the affidavits, I do not think them sufficient to justify the court in granting a rule.

PARKE, J.: The objection to the patent, as explained by the specification, may be thus stated. The patent is for several things, one of which, then supposed to be useful, is now found not to be so; but there is no case deciding that a patent is on that ground void, although cases have gone the length of deciding, that if a patent be granted for three things, and one of them is not new, it fails *in toto*. The prerogative as to granting patents was restrained by the statute 21 Jac. 1, c. 3, s. 6, to cases or grants "to the true and first inventors of manufactures which others at the time of granting the patent shall not use."

The condition therefore is, that the thing shall be new, not that it shall be useful; and although the question of its utility has been sometimes left to a jury, I think the condition imposed by the statute has been complied with when it has been proved to be new. There was no evidence in this case to show that the plaintiffs were not the inventors of this machine, in this country at least. But the statute further requires that it shall not have been used by others, and it is said that the latter part of the condition has not been satisfied(*f*.) But there was no evidence of the use of such a machine before the grant of the patent, and there is no case in which a patentee has been deprived of the benefit of his invention, because another also had invented it, unless he had also brought it into use. Upon these grounds, I think that neither of the objections taken ought to prevail, and that the plaintiffs are entitled to retain the verdict found in their favour.

Utility is not a condition imposed by the statute, which is satisfied if the invention be new.

Rule refused.

SIEVIER'S PATENT.

Letters patent, 17th Jan. 1833, to R. W. Sievier, for "an improvement or improvements in the making or manufacturing of elastic goods or fabrics, applicable to various useful purposes." *Title.*

My invention of and improvement or improvements in the making or manufacturing of elastic goods or fabrics, applicable to various useful purposes, are designed for the production of an elastic web cloth or other manufactured fabric for bandages, *Specification.*

the earlier cases, before the statute of James, this principle was acted on to the neglect of the rights of the inventor; but since that statute the introducer must also be an inventor. If he be an inventor and introducer of that which others at the time of granting the letters patent do not use, he

is the true and first inventor within the meaning of the Statute of Monopolies. See the next judgment.

(*f*) The words of the statute are, "which others at the time of making such letters patent and grant shall not use." See preceding note.

Specification.

and for such articles of dress as the same may be applicable to. The first object which I propose, is to manufacture an article by the ordinary knitting frame, or similar kind of machinery, in which cords or strands of Indian rubber shall be introduced between the loops or stitches of the fabric, for the purpose of forming elastic cords or bands round the margins or other parts of stockings, socks, gloves, night-caps, drawers, and various other articles of clothing. The second object is, to manufacture in the ordinary loom, an elastic woollen cloth, by the introduction of cords or strands of Indian rubber among the longitudinal threads or yarns which constitute the chain or warp, and also among the transverse threads or yarns which constitute the weft or shoot, and which cloth shall be capable of being afterwards felted and dressed with a nap. The third object is to produce cloth from cotton, flax or other suitable material, not capable of felting, in which shall be interwoven elastic cords or strands of Indian rubber, coated or wound round with a filamentous material. The first of these improvements I effect by preparing knitting frames or other similar machines, in the usual way for the production of the knitted materials called stocking fabric; and when the same are set to work, and the fabric has been manufactured by the ordinary knitting process, up to the part at which I desire to introduce the elastic cord or strands, I then, by the adjusting screws of the machine, provide for the elongation or contraction of the lengths of the loops or stitches of the row next to be produced across the machine, in order to form a channel to receive the said elastic cord or strand; and having prepared fine strips of Indian rubber, which may, if desired, be coated or covered with a filamentous material, as described in the specification of my patent, dated the first day of December, 1831, and enrolled in the office of the Rolls' Chapel of the High Courts of Chancery, in June, 1832; I conduct such thread, cord, strand, or strip of Indian rubber, by means of a long needle, hook, pincers, or other suitable apparatus answering the purpose of a shuttle, across the machine between the row of stitches or loops which were last made, and those which are then about to be formed; and having drawn the said Indian rubber thread, cord, or strand, straight and smooth, I complete the last-mentioned row of loops or stitches by the ordinary movements of the machine, which encloses the Indian rubber thread, cord, or strand, and keeps it securely in its place, interwoven with the threads of the fabric. A second thread of Indian rubber is in like manner introduced between the next, or other subsequent row of stitches, and is in the same way confined; and any further number of these threads, cords, or strands, may by the same means be inserted and interwoven into the fabric at such parts as may be required for the purpose of producing (when the selvages are connected or whipped together) elastic bandages,

bracings, round the stocking, sock, glove, night-cap, *Specification.*

ticle of wearing apparel. If the elastic cloth so proposed be intended for outward garments, with a nap surface, I should employ, in connexion with the Indian rands, yarns spun from short wool, which, after having n, I should finish as the woollen cloths are usually at is, felt the wool in the fulling stock, raise the pile shiner, or by hand cards or teazles, and afterwards ap down to a fine smooth surface. In manufacturing loth from cotton, flax, or other material, which is not o be milled or fulled, I introduce into the fabric strands of Indian rubber, which have been previously r winding filaments tightly round them through the an ordinary covering machine, or otherwise; these Indian rubber being applied as warp or weft, or as ding to the direction of the elasticity required. By ining the strands of Indian rubber with yarns of cot- or other non-elastic material, I am enabled to produce ich shall afford any required degree of elastic pressure, o the proportions of the elastic and non-elastic mate- mains only to add, that the strands of Indian rubber : first instance, stretched to their utmost tension, and non-elastic, as described in my former specification, in that state introduced in the fabric, they acquire icity by the application of heat, after the fabric is stly, as my invention consists solely in the employment of Indian rubber, in connexion with yarns, in the ibed, for manufacturing elastic goods or fabrics, I deemed it necessary to describe any particular kind of for carrying the same into effect, as such machinery own, and forms no part of my invention.

In witness, &c.

ng are referred to in the subsequent gs on the above patent:— ent, 1st Dec. 1831, to R. W. Sievier, mprovements in the making of m- f cables, ropes, whale fishing, and lathe and rigger bands, bags, and of which said improved articles are other useful purposes."

1.—This invention consists in the employment of filaments, threads, caoutchouc Indian rubber, to or ag, manufacturing, or constructing les, ropes, whale fishing and other nd rigger bands, bags, and purses; threads, or strands of caoutchouc r being previously plaited over or hemp, flax, silk, wool, cotton, cat- grass, strips of leather, or other materials, part of which articles ufactured are applicable to various s, as filaments or threads of Indian ed with cotton, silk, and other ma-

terials, are now commonly used in the manufac- ture of many articles where elasticity is required; and as such filaments or threads are covered with different materials by various kinds of machines applicable to the purpose, it is not necessary for me to describe any particular machinery by which the filaments, threads, or strands of Indian rubber required for the different articles to be manufac- tured in my improved manner are to be plaited, intermixed, or covered with the materials; I therefore shall only state generally, that the fila- ments, threads, or strands of caoutchouc are pre- pared by cutting them from any convenient sized or shaped piece of Indian rubber, into long strips, which are afterwards stretched to their utmost tension, and wound upon drums, reels, or bobbins, ready to be plaited over or covered by, or inter- woven with, the various materials mentioned.— After describing the mode of applying the inven- tion to the manufacture of cables, &c. the specifi- cation proceeded: My improved bags and purses are composed of knitting or net-work, made of

strands or cords of the filaments, prepared as above described, and which are capable of being made into purses or bags by hand; or the filaments, strands, or cords, prepared as above described, may be knitted, netted, or plaited, into purses or bags by machinery or by hand. As there are so many descriptions of bags to which these improvements in the construction may be applicable, it is not necessary to state further than that, in any case where elasticity may be required, the bag or purse may be made wholly of the above materials, or only parts used; for instance, in making carpet travelling bags, I should only form the ends or edges of the bags of the elastic material, covered when stretched to its utmost extension with leather, or other suitable substance, which will be capable of collapsing of drawing up the leather or other covering into puckers or gathers, so as to allow of the bag enlarging very considerably when any extra quantity of articles is put into it.

Letters patent, 29th April, 1820, to Thomas Hancock, "for the application of a certain material to various articles of dress, and other articles, by which the same may be rendered more elastic."

Specification.—The material I use is caoutchouc; I cut it into slips of a convenient length and thickness, according to the purpose for which it is to be used, and the degree of elasticity necessary. If the quality of the caoutchouc is not the best, or the spring is not required to be very substantial, I prepare these strips by putting them into hot water, and steeping them awhile to prevent their cracking on the edges; when the substance of the spring is required to be more considerable, or the quality of the caoutchouc better, I use it without such preparations. I apply the caoutchouc spring to gloves in the following manner:—A case or pipe of leather, linen, or cotton, or other similar material, is made as long as it is necessary the spring should stretch; the spring is then fastened at the extremities of the pipe or case, by sewing or otherwise, in such a manner as that the pipe may contract and gather up very considerably. The case or pipe is then fixed in the wrist of the glove, so as to contract the glove to the size of the wrist, care being taken not to make the spring so strong but that the glove will easily draw over the hand. The case or pipe may be made in the glove itself, and the spring be introduced in the manner I have described. Attention must be paid in fastening the caoutchouc, that it is not pierced any where between the extremities by the needle, otherwise it will be liable to tear and break. In a similar manner, I apply the caoutchouc spring to any other article of dress where elasticity is desirable at any particular part. I apply the caoutchouc springs to waistcoats and waistbands, to make them contract and sit close to the body; to coat sleeve linings, to draw them closer round the wrist; to the mouth of pockets, to prevent their contents from falling out when in an inverted position, and prevent their being easily picked; to trousers and to gaiter straps, to enable them to lengthen and shorten to the bend of the knees and ankle joints; to braces, instead of wire and other springs, as now commonly used; to stockings, to prevent their slipping down the legs; to garters, to shirt wrists, to the knees of drawers and breeches, to

wigs, false curls and fronts, to keep tight on the head; to pocket books and purses, instead of the strop and loop, and wire springs; to riding belts, to stays, and such part of the apparel and dress of women as require to be kept close to the person, and yet to be elastic; as fastenings to boots, shoes, clogs, and pattens, when the object is to take them off and on without any difficulty of unlacing or untying. I apply caoutchouc to the soles of boots, shoes or clogs, by making either the whole sole of caoutchouc, or the inner or outer sole only, or by fastening a piece of caoutchouc between the soles; and in either case, boots, shoes, and clogs, are rendered more elastic to the foot. I apply the caoutchouc spring to stiffeners of neck-cloths. I use caoutchouc in springs to render them elastic to the foot, by forming a piece to the bottom of the stirrup, which I fasten in by having holes drilled in the stirrup, and sewing in the caoutchouc with wax thread or wire, or by rivetting or screwing it on with iron. In this specification, I do not insist on any particular mode of applying or fastening caoutchouc to the various articles described, my object being to produce and apply a better kind of spring than any now in use for the purposes above mentioned.

Letters patent, 14th Nov. 1832, to J. V. Desgrands, "for an invention of a certain method of weaving elastic fabrics." The specification, enrolled 14th May, 1833, contained the following passage. "And whereas cords or strands of Indian rubber have been heretofore used in various ways for composing elastic articles, as for instance, by introducing such India rubber cords or strings in the said articles to act as springs, the same being contained in pipes or cases of leather, linen, and cotton, or other similar material, in the manner described in the specification of a patent granted to Thomas Hancock, on or about the 29th of April, 1820. And whereas such India rubber cords or strings, covered by plaiting, winding, or otherwise, with cotton, or silk, or other like filamentous material, have, or may have been combined, by laying them together, or putting, or interplacing, or netting them together, to form cables, ropes, lines, bags, and other like fabrics or articles, as described in the specification of a patent, granted to Robert W. Sievier, on the 1st of December, 1831. And whereas also such cords or strings so covered with cotton or silk, or other like material, have or may have been woven in combination with cotton or flax, or other similar yarns, to produce a fabric partially elastic, &c. &c. Now, I do hereby declare, that I do not claim the use of cords or strings of caoutchouc when the same are so covered with silk or cotton, or other like material, wound, plaited, or otherwise laid around them, or when the same are used merely as springs, or in any other way than that I have described hereinbefore; I claim only the method which I have described of weaving elastic fabrics with uncovered or bare cords or strings of caoutchouc or India rubber, in looms of any of the ordinary constructions, the said bare ends or springs of caoutchouc forming either the entirety or any portion of the warp, or of the weft, or both the warp and weft, of such elastic fabrics."

CORNISH & SIEVIER v. KEENE & NICKELS.

Cor. Sir N. C. Tindal, C.J.

Dec. 7, 8, & 9,
A. D. 1835.

The declaration, after stating the invention by *Siever*, the grant of the letters patent, and the enrolment of the specification, further stated that the plaintiff *Siever*, the 7th of April, 1834, duly assigned to the plaintiff *Cornish* one undivided half-part, or share, or interest, of him the said *Siever*, in the said invention, and the benefit and advantage thereof, under and by virtue of the said letters patent, and that they, the plaintiffs, on the day and year aforesaid, became, and were, and still are, interested in form aforesaid, in the said invention, and in the said letters patent, and in the benefit and advantage thereof. The declaration, after averring the use of the said invention by the plaintiffs, assigned as breaches the making, using, and putting in practice, the said invention, the counterfeiting, imitating, and resembling the same, the making divers additions thereto and subtractions therefrom, and the vending and selling large quantities of goods and fabrics, manufactured according to the said invention (a).

The defendants pleaded—1. Not guilty. 2. That the plaintiff *Siever* was not the true and first inventor of any improvement or improvements in the making or manufacturing of elastic goods or fabrics, applicable to various useful purposes. 3. That the said invention was not before and at the time of the making the said letters patent new as to the public use and exercise thereof in Great Britain, nor was the same invented by the plaintiff *Siever*. 4. That the said invention was not an improvement in the making or manufacturing of elastic goods or fabrics, applicable to various useful purposes. 5. That the plaintiff *Siever* did not particularly describe and ascertain the nature of his said invention, and in what manner the same was to be performed, by any instrument in writing, in manner and form, as alleged. Upon which pleas issue was joined.

Sir J. Campbell, A. G., Sir Thos. Wilde, Stephen Sergt., and Hindmarch, were counsel for the plaintiffs; Sir F. Pollock, Cresswell, and Knowles, for the defendants. The nature of the case and of the evidence will appear from the summing up of the learned judge.

Sir N. Tindal, C. J.: Gentlemen, this is an action which is brought for the infringement of a patent, which bears date the 17th of Jan. 1833, and which appears to have been a patent, as expressed upon the face of it, for an improvement or improve-

(a) Error was brought on this declaration, on the grounds that the assignment was not averred to be by deed; also, that no joint damage was

shown. But the Exchequer Chamber held the declaration sufficient after verdict.

Sir N.C. Tindal, C.J., to the jury. ments in the making or manufacturing of elastic goods or fabrics, applicable to various useful purposes. That is the title of the patent, and it must be substantially made out, of course, by the evidence, that such invention has been made and given to the public before the plaintiffs can succeed. However, the defendants have put upon the record and have raised various issues, which you are to decide between them, and I mention them to you in order that we may at once get rid of those that are in a manner of less consequence to the invention in the present instance, and which will require very little consideration, so that your attention may be limited strictly and entirely to the points that are really in dispute between the parties on the present occasion.

In the first place, the defendants have said that they are not guilty of an infringement of the patent with which they are charged. That is, they have neither sold from their own stock any of those articles, the exclusive making of which was intended to, granted and confined to, the plaintiff *Siever*. Then they go on to say, that at the time of granting this patent, Mr. *Siever* was not the first inventor of it; that raises another question for your determination. Then they go on to say, that the invention or discovery itself, at the time when the patent was granted, was not a new invention as to the public use and exercise thereof in England, which, I must tell you beforehand, will be the principal question you will have to try; and further to say, that it was not an improvement in the making or manufacturing of elastic goods or fabrics, applicable to useful purposes. That again is another question upon which evidence has been given on both sides, and which you must determine. And they lastly say, there was no sufficient specification, that is, that the party has not by a proper and apt description so stated the discovery upon the specification, which is enrolled in Chancery, that the public afterwards, when the time of the patent is expired, may reap the benefit of the discovery, by being able to manufacture the article by themselves.

Now, with respect to the first question, whether he has or not infringed the patent, supposing it to be a good patent, that depends upon the evidence of several of the witnesses, and who stated that they had purchased in the month of October, 1834, from the defendant *Keene's* warehouse, several articles which resembled No. 3. [Mr. *Cresswell*: I will not ask your lordship to put that question to the jury.] I think upon the last also, which is the specification, very little question arises, because not only persons of skill and science read it, and say that it is intelligible to them to make the manufacture from, but also two or three witnesses were called who actually made it without any instruction but the specification. No person was called, who, upon reading the specification, stated he could not understand

Tests of the sufficiency of the specification.

it, or had been misled by it, or incurred expense in endeavouring A. D. 1835. to copy or to imitate it, or stated that he was unable to ascertain what was meant by it. Men of science can understand it when read, and you yourselves can tell whether you understand it; and persons have been found in the humble walks of life, who have been able to make the fabric, without any other direction than that of the specification. Therefore, that will be a question not of very serious consideration when brought to your minds.

The next remaining question which I shall call your attention to is, whether this was or was not an improvement upon any manufacture of any fabric of the same kind, that was in general use. Upon that there is certainly contradictory evidence. You, however, will have to say (for that is a question made between the parties), whether that which is called No. 3, according to the specimens which have been exhibited to us, is or is not an improvement for the various purposes for which this patent was intended, over the manufactures which were known in the trade, namely, Nos. 1 and 2. I allude to them by the names Nos. 1, 2, 3, because we have had those terms so extremely familiar to our minds for the last three days, that it is a compendious mode of describing the fabric, and perhaps it brings it as clearly to your understanding as if I were to go through the more formal explanation of that which 1, 2, and 3, denote. Now, was this No. 3, which varies in its mode of attaining its object from either No. 1, which was entirely composed of elastic material, or from No. 2, which contains the elastic material in a kind of sheath or case, was this an improvement upon that No. 2, for the various purposes for which the patent was taken out? Because the plaintiff *Sievier* undoubtedly having taken out this patent for different objects, it is incumbent upon him to show that the various objects for which he took out his patent and discovery, are such as will improve the manufacture of the article in their various particulars; and for that purpose we must look at what his object was, and then briefly refer to the evidence of which you are to be the judges. The specification which he has put in, after stating what his intention was in the terms to which I have referred, says he has three different objects in view in obtaining this patent, and he gives you an account of this first object which he proposes, which is to manufacture an article by the ordinary knitting frame, or similar kind of machinery, in which cords or strands of Indian rubber shall be introduced between the loops or stitches of the fabric, for the purpose of forming elastic cords or bands round the margins or other parts of stockings, socks, gloves, night-caps, drawers, and various other articles of clothing. That is one of his objects. Another is to manufacture with the ordinary loom an elastic woollen cloth by introducing

The objects of
the invention.

Sir N.C. Tindal, the Indian rubber, so as to make it elastic either latitudinally or C.J., to the jury. longitudinally, and to have a felt such as will nap, if that is necessary; that is the second object. The third object, which I believe is the principal one which is contested between the parties—the other two, although mentioned very necessary to be proved to be useful, not being that for which the great value of the patent is probably esteemed—is this. He says the third object is to produce cloth from cotton, flax, or other suitable material, not capable of felting, in which shall be interwoven elastic cords or strands of Indian rubber, coated or wound round with a filamentous material.

Now, with regard to the two first objects, but little evidence has been given; there has been some evidence, and that but little, and I am not aware that as to the two first there is any contradictory evidence brought on the part of the defendants: in fact, although it is necessary to leave this to you, it is impossible not to see that the great battle between these parties has turned upon the third object. That is, making the webs for braces, which are applicable to so many purposes in life; the other two are smaller, both in the estimation of the patentee and the public. The first, however, you observe by the cotton articles which were brought into court—the night-cap, gloves, and other articles—is the interknitting this braided material, so as to form a part of the fabric, and at the same time to give the parts that require it a degree of tension that is necessary and useful to the purpose. Is or is not that a useful discovery after the other? The persons who were called, stated that in their opinion they thought it was. I am not aware, but if you wish to have your attention called to it I will refer to the evidence, but I am not aware that there was any evidence specifically denying the utility of that on the side of the defendants. The next is, the object of making a woollen cloth which shall have the texture either latitudinally or longitudinally extensible, according to the degree of force that is applied to it. Now it certainly does not appear, as I have stated, that that was an important part of the patent to the patentees, at least they never have brought it (as far as we have evidence) into a considerable degree of use. And I am not aware of any more evidence being given of the making of cloth than the two specimens which were exhibited to you in court; they were handed up to you, they were placed each way as you must have seen, and seemed to answer the description, and the witnesses who produced them said, they thought it would be extremely useful, that it would make coats for common people in the ordinary class of life, that it would yield to the pressure applied to it, and would last out many others. I am not aware on this head also that any great, or indeed any evidence, was brought to contradict that evidence, as to the utility of this part of the in-

vention; in fact, it seems to me as if by a kind of consent, though A. D. 1835. I am not able to put it to you in that way, that the contest, whether this patent was valid or not, was reserved for the third and greater object, namely, the making the elastic web for making braces, garters, and other articles of that sort. You are bound, however, to say whether, with respect to one and all, the defendants or plaintiffs have succeeded on that plea, namely, whether the various objects are useful improvements upon the state of the manufacture as it was then practised. We come, therefore, to the third point, that is, the making these webs, which, where he comes to state more fully his mode of doing it, he states that the manufacture of elastic cloth, as he calls it (perhaps the word "web" would have been more familiar to a common comprehension), but the word "cloth" will cover it, it may be made of flax, though it more commonly applied to that which is made of wool: he says, "In manufacturing an elastic cloth from cotton, flax, or other material, which is not intended to be milled or fulled, I introduce into the fabric threads or strands of Indian rubber, which have been previously covered by winding filaments tightly round them through the agency of an ordinary covering machine, or otherwise; these strands of Indian rubber being applied as warp or weft, or as both, according to the direction of the elasticity required. By thus combining the strands of Indian rubber with yarns of cotton, flax, or other non-elastic material, I am enabled to produce a cloth which shall afford any degree of elastic pressure, according to the proportions of the elastic material." It was with reference particularly to this, the third object, that I stated the evidence on each side was contradictory, and that you must draw the balance between the parties. On the part of the plaintiffs, several of the witnesses, particularly Mr. Farey and Dr. Ure, stated the web and cloth, which was so made, was an improvement upon that which had preceded it; that it is lighter, more porous, and that it will yield more than the other—that it will adapt itself to the human frame more easily than the former—and that it is much cheaper. Now I believe all sides agree upon this, that it is considerably cheaper, and indeed it stands to reason that that which is designated No. 3, would be much cheaper than No. 1, which is entirely made of longitudinal threads of Indian rubber, because the cotton that is combined with it in No. 3, is a much cheaper article to make the same quantity of fabric than the other. That is the account they give—that it is lighter, more porous, and in cases, they say, where pressure is required, it is admirable in its consequences, for without compressing the parts within it, it gives all that proper degree of pressure which may be required for the purposes for which it is used. And two gentlemen are called of the medical profession, Mr. Skey and Mr. Holt, and they tell you

Sir N.C. Tindal,
C.J., to the jury.

The invention
must be an im-
provement for
all purposes,
not for one only.

Cheapness is an
improvement,
but not alone to
be considered.

The fact of an
extensive sale is
to be considered.

that they think it is a very great improvement for use in surgical cases where bandages are required; that it is vastly superior to No. 1—in which it is entirely composed of Indian rubber—not only as being more light, but also as being more porous, so as to allow of the possibility of perspiration passing from the patient—a matter of very considerable consequence. It is a circumstance in the case that it is found useful for surgical purposes. The patent, however, is not taken out for that purpose, and it would not be sufficient in order to maintain the patent, on the ground of its being an improvement, to show that it was an improvement in surgical cases for bandages only, because the patent is not only confined to that, but they must prove also that it is generally an improvement with respect to the general uses of that fabric or manufacture which was intended—that is, with respect to braces, garters, and other articles that are made of it. The evidence on the part of the plaintiffs states that it is cheaper, and cheapness is an improvement, and not to be laid aside and thought nothing of, and you are to consider it among other things; but that is not the only thing to be considered, because they may have a thing too cheap to be useful, and you must see whether it combines with it the other property of utility, which the former fabric when used for the same purpose possessed. The gentlemen who are called for the plaintiffs state that it does; several of the witnesses on the part of the defendants (I don't say all) speak very lightly of it. One of them, the first who was called, states that he thought it a production calculated to bring No. 1 into contempt; he had at one time made it, but had soon relinquished it, and had gone back to No. 1, which is made entirely of the extensible material (the Indian rubber); and so several of the others stated. One stated, that he thought it was not so good, "because," says the man, "though it is cheaper it is heavier." "I found it," says the first witness, "not an improvement, but quite the reverse, and calculated to bring the thing into contempt, and so I gave it up, and I afterwards continued the old principle, making it all elastic." The plaintiffs' second witness says, "it has an advantage over No. 1 and 2, that is, much cheaper; it is not a better article than No. 1, it is not so good—not so good for braces only." Then he goes on to say, "that No. 3 has almost superseded No. 1, and we sell more of No. 3." Gentlemen, the evidence being of this nature, you are at liberty to consult your own judgment of the thing, the article having been exhibited before you. You will apply your own good sense and experience to them, and say which of these two sets of witnesses are speaking that which you must rely upon; and it is an observation not to be lost sight of, that the No. 3 article is one which, according to the testimony of this witness, as well as another, has had an extensive sale, and by having had

extensive sale, we are at liberty to ask ourselves how it ob- A. D. 1835.
 ined that; and although certainly the circumstance of its
 ing considerably cheaper would go a great way to account for
 at, it would not go the whole way. Therefore, you must
 k yourselves, whether in making braces, garters, and other
 ticles, for which this web was originally intended, and before
 e improvement was applied by the public, this has made
 i improvement upon it before the patent was applied,
 d is more beneficial and useful to the public than the other
 as. That is one of the questions which you will have to
 termine.

We are now approaching nearer the real question in contest
 tween these parties, that is, whether it is a new discovery, of
 hich the present patentee Mr. Sievier was the first inventor,
 whether it was known and practised in England before, and
 the time of obtaining the patent in question. That question
 pon this record is resolved into two—They have said, that the
 anufacture itself is not in the language of the plea a new in-
 vention, as to the public use and exercise thereof in England—
 ey go on to say, that Mr. Sievier is not the true and first in-
 ventor thereof; I don't know whether in this particular case,
 e second question will become very material upon the facts of
 e case, if you dispose of the first, because if the defendants es-
 tablish for instance their case, that it was something known and
 ractised in England generally at the time of the patent, why it
 useless to inquire any further, whether the matter occurred to
 Sievier, whether he was the first inventor or not, because the
 answer would be, why did he not take out his patent sooner, so
 s to secure the right to himself; on the other hand, if you de-
 ide it was a new discovery, and therefore that the patent is a
 ood one, that is, that it was not known and practised in the
 ingdom at the time the patent was granted, then, in this par-
 ticular case, there is nothing to deprive Mr. Sievier of the merits
 f being the inventor of this improved manufacture—there is no
 articular evidence that points to him as having borrowed it
 rom any body else, or from the public sources to which the
 ublic has the right of access. Sometimes it is a material ques-
 ion to determine, whether the party who got the patent was
 he real and original inventor or not; because these patents are
 ranted as a reward, not only for the benefit that is conferred
 upon the public by the discovery, but also to the ingenuity of
 he first inventor; and although it is proved that it is a new
 discovery so far as the world is concerned, yet if any body is
 ble to show that although that was new—that the party who
 got the patent was not the man whose ingenuity first discovered
 t, that he had borrowed it from A. or B., or taken it from a
 ook that was printed in England, and which was open to all
 he world—then, although the public had the benefit of it, it

Two distinct is-
 sues as to no-
 velty; the one,
 whether the in-
 vention is in
 use—the other,
 whether the
 party derived it
 from another.

Sir N.C. Tindal, would become an important question whether he was the first and original inventor of it. The main question is, whether this No. 3, which is the principal subject of the patent, was or was not in use in England at the time of granting these letters patent. Was it or was it not, in the language of the act of parliament, such a manufacture (which has a very wide and extended meaning—you may call it almost invention), was it or was it not such an invention, at the time of making the letters patent, as was current in use. If this No. 3, calling it technically and com-

If known publicly, and practised openly, so that others might acquire the knowledge, the patent void.

There are certain limits as to public use and operation.

Unsuccessful experiment cannot vitiate.

pendiously by that title, was at the time these letters patent were granted in any degree of general use; if it was known at all to the world publicly and practised openly, so that any other person might have the means of acquiring the knowledge of it, as well as this person who obtained the patent—then the letters patent are void; on the other hand, if it were not known and used at the time in England, then as far as this question is concerned the letters patent will stand. Now it will be a question for you, gentlemen, to say, whether upon the evidence which you have heard you are satisfied that the invention was or was not in use and operation, public use and operation, at the time the letters patent were granted? It is obvious that there are certain limits to that question; the bringing it within that precise description which I have just given must depend upon the particular facts that are brought before a jury. A man may make experiments in his own closet for the purpose of improving any art or manufacture in public use; if he makes these experiments and never communicates them to the world, and lays them by as forgotten things, another person, who has made the same experiments, or has gone a little further, or is satisfied with the experiments, may take out a patent, and protect himself in the privilege of the sole making of the article for fourteen years; and it will be no answer to him to say that another person before him made the same experiments, and therefore that he was not the first discoverer of it—because there may be many discoverers starting at the same time, many rivals that may be running on the same road at the same time, and the first which comes to the crown and takes out a patent, it not being generally known to the public, is the man who has a right to clothe himself with the authority of the patent, and enjoy its benefits. That would be an extreme case on one side; but if the evidence that is brought in any case, when properly considered, classes itself under the description of experiment only, and unsuccessful experiment, that would be no answer to the validity of the patent. On the other hand, the use of an article may be so general as to be almost universal. In a case like that, you can hardly suppose that any one would incur the expense and trouble of taking out a patent. That would be a case where all mankind would say—"You have no right to

step in and take that which is in almost universal use, for that A. D. 1835. is, in fact, to create a monopoly to yourself in this article, without either giving the benefit to the world of the new discovery, or the personal right to the value of the patent, to which you would be entitled from your ingenuity, and from your application." Therefore, it must be between those two (if I may so call it) limits that cases will range themselves in evidence, and it must be for a jury to say, whether, supposing those points to be out of the question, in any particular case, evidence which has been brought before them convinces them to their understandings that the subject of the patent was in public use and operation at that time—at the time when the patent itself was granted by the crown? If it was in public use and operation, then the patent is a void patent, and amounts to a monopoly; if it was not, the patent stands good. Now, gentlemen, you will have to apply your understanding to-day to the evidence in this case, which is in many parts contradictory, in order to see whether you bring the case within the one or the other of these two descriptions, and whether this patent is or not a new invention. On the part of the plaintiffs in this case (referring as I do, and all my other observations have been made simply on this part of the case), the evidence is, as it necessarily must be, of a negative character; the assertion of the plaintiff *Siever* is, "at the time I took out my patent No. 3, the subject of the patent was not generally known, it was a new invention by me, and was not known to the world." You cannot prove a negative strictly—you can only do so by exhausting the affirmative instances of it, by calling persons who have never heard of it or seen it, and the more those persons are in the way of hearing of it or seeing it, if it had existed, the stronger is that exhausting evidence, if I may so call it, in its effect and value with the jury. From the nature of the case, it is very difficult to suppose such circumstances as that a party should distinctly and affirmatively prove that it was a new invention, that it was not known and practised at the time the patent was obtained; therefore he calls several witnesses to prove that part of the proposition, namely, that there were persons who had been in this trade for several years. Mr. Rodgers tells you, there were but a few of the larger manufacturers of this article in London, and that previous to obtaining this patent, from the intercourse he had had with the trade, he thinks it likely if there had been such an article in the market it would have been offered to him for sale, and none such was offered; the first he ever saw of it, I think, was in 1834; he became acquainted with No. 3, he says, in 1834, and first bought it in August; he became acquainted with it some three or four months before. Now *Minton*, who is the agent of the plaintiff, states, that since April or May, 1833, he had supplied the trade

Public use at the time of the grant.

The only evidence which the plaintiff can give on the issue of novelty, is that of persons who were in the way of hearing of the invention, not having heard of it.

Sir N. C. Tindal, with it, and he says, what he supplied them with was, the alternate web, and he saw nothing like No. 3, except that of the plaintiffs, until October, 1834, when No. 4, that is what is called the imitation by the defendants, was first sent out to the public. Then again *Hickling* states pretty much to the same effect; he became acquainted with No. 3 in 1834, and had not seen or heard of it before that: *Lindsay* speaks to the fact, that before April, 1833, he never saw any thing of the sort; and he gives you this fact, which you will have to consider and contrast with the evidence afterwards called, that he had lived as a servant of the defendants from October, 1832, to April, 1833, and then he went from the defendants to the plaintiffs; therefore he gives you something more than negative evidence, for he says, that while he was at the defendants', No. 3 was not made there. He undertakes to say that; therefore you will have to compare that evidence with the evidence of *Walter, Hall*, and the other witnesses, upon whom so much observation was made. *Lindsay* is sure that was so, because there was only one loom at the defendants which could make it, and he took it with him when he went, and brought it away when he left the defendants' employ. That is the negative account, which is a *prima facie* account, and sufficient to show there was no such article till the affirmative was proved. Now the defendants, on the other side, have undertaken to convince you, that at the time when the patent was granted, the public were in possession of this—that it was an operation known and used; they undertook to show you, by affirmative evidence, that it was actually known and used, and that it was so known and used as that it is impossible to have any doubt upon the fact. They say, and show you, not only that various persons were making this before the time, and dealing with it as an article of trade, but that the defendants themselves say they had actually used it a year before very nearly, or a considerable time before the date of these letters patent. In order to establish this affirmative, they give you three distinct lines of evidence: first of all, they put in the specification of a former patent, which had been obtained by the plaintiff on the 1st of December, 1831, and they say that this specification, if you look at it, is in effect a declaration to all the world of this so-called new discovery, which is the subject of the patent of January, 1833. Undoubtedly, if you could show under the hand of the plaintiff, or any body's hand, that the secret had been publicly communicated to the world which was intended to be covered by the subsequent patent, there is an end of that patent; if the world at large had been informed by this specification of the colour, fabric, and manufacture, which is intended to be effected by the subsequent patent, the subsequent patent must fall to the ground, otherwise a man would have nothing

As to the disclosure of the invention in the specification of a prior patent.

do but to take out patent after patent when the former has A. D. 1835. already expired, and so afterwards procure to himself an unlimited privilege; therefore the question is, does it or not, when you look at it, carry with it the discovery or invention, as it is intended it does, of the new patent? When I first saw it I was considerably struck by the observation made by the counsel at the bar for the defendants, but upon looking further at it, I was not prepared to tell you, nor would it be proper to tell you, because it is a matter of fact for your consideration, that this does embody in it a discovery of the subsequent patent. Reading it as a common man, I should rather think it applies to the case where the elastic material is combined at each end, and bound in one mass or strand with non-elastic materials, and not where they each act separately and independently by themselves. If you by looking at this can find out the other, and you see that in this the other is contained, there is an end of the second patent—if not, we must pass it by, and go to the other evidence in the case.

In the one patent the elastic strands are bound together at the ends in a mass, in the other each strand acts independently.

The other evidence in the case is of two sorts, that is, the other evidence is that which applies to the making of this fabric by other persons than the defendants, and then comes a body of evidence to show that it was actually made by the defendants as far back as June, 1832—between June and November, 1832. If either of those is proved—that is, that it was generally known and practised, and not merely as a matter of experiment and kept secret by the party, and thrown away as the result of that which was of no use to the public—the patent is gone; or if the defendants have shown that they practised it and produced the same result in their factory before the time the patent was obtained, they cannot be prevented by the subsequent patent from going on with that which they have done. But that is a mere question of fact, which you are to judge of; I am not to judge of it at all between the conflicting evidence which has been brought forward on both sides. Having now endeavoured as far as I am able to simplify the case by bringing your attention to the true point, I shall now proceed to read the evidence to you as far as you wish it, and you will then make up your minds upon it. You best know whether you have that collection of it to make it necessary or not, but I shall have great satisfaction in doing it if you wish it to be done. [The foreman of the jury intimated that the jury had a full recollection of the evidence, and they merely wished to have their attention drawn to the particular points which had borne upon his lordship's mind.] Then, gentlemen, I certainly shall not take up your time unnecessarily by reading the evidence, but I will briefly conclude what I have to say, by calling your attention again to the several points which you have to determine. You must say, whether the defendants have infringed the patent at

General use and experiment to be distinguished.

Parties cannot be restrained in what they were doing before.

Sir N. C. Tindal, all; that I suppose there is no doubt about; and then you must C.J., to the jury. say, whether there is a sufficient description and ascertainment of the nature of the invention, and of the manner in which it is to be performed; that is the question as to whether there is a specification or not. Then you must say, was it an improvement in the making or manufacturing of elastic goods or fabrics, applicable to useful purposes. Then come the remaining issues, one of which is, was the plaintiff Sievier, at the time of making the patent, the true and first inventor. Then comes the main question of all, which is, whether the invention and discovery at the time that the patent was granted, was a new invention as to the use and public exercise thereof in England; those are the very terms upon which the plea of the defendants is founded. I am not aware that by going more fully into it, I can make you better acquainted with the discovery than you must be already. I would only observe, that it must not be such a practice of it as is only referable to mere experiments for the purpose of making a discovery, or something secret, or confined to the party who was making it at the time, but that it must be, in order to set aside the patent, a case where it was in public use and operation among persons in that trade, and likely to know it. If you find that it was so, you will find a verdict for the defendants; if you are not satisfied with that, and think the case made by the defendants is not proved to your understandings, that there was a public use and exercise of the invention in England, why then you will find a verdict for the plaintiffs, with a shilling damages. The question is as to the right to the patent—no damages are sought.

The user which will vitiate must not be such as can be classified as experiment, or secret, but must be public.

Verdict for the plaintiffs.

Cor. Sir N. C. Tindal, C.J.; Park, J.; Gaselee, J.; & Bosanquet, J.

H. T., 1836.

Motion for nonsuit, or new trial.

Sir F. Pollock moved for a nonsuit on the points reserved—that the invention was not the subject-matter of letters patent, and that the specification was insufficient; and for a new trial, on the grounds—1. That the verdict was against evidence. 2. Misdirection. 3. The existence of a patent of prior date by about two months, containing in its specification two of the matters in the plaintiffs' patent, on an affidavit of this prior patent having come to the defendants' knowledge since the trial. The nature of the above grounds is sufficiently adverted to in the judgments and argument on the rule.

Judgment.

Sir N. TINDAL, C. J.: We are satisfied, from what has been stated by the counsel at the bar, that there ought to be a rule

for a nonsuit, upon the points which were reserved, H. T., 1836.
 for a new trial, upon the ground discussed and con-
 sidered, whether the verdict was or not against the evi-
 dence in the cause, and upon the new evidence that since the
 trial of the cause has come to the knowledge of the parties. As
 as I am individually concerned, I had much rather that the
 court should go generally as to the direction which I gave, but
 the learned brothers think there is no ground for moving as
 on a misdirection.

BARRE, J.: We should not lightly grant motions for nonsuits
 new trials, upon the ground of judges not actually stating
 the case in the way that counsel shall afterwards, either then or
 at the time, consider ought to be done. According to the
 agreement, which I have no doubt is an accurate one, of Mr.
 Maxwell's note, it seems to me it does not furnish any founda-
 tion for a ground of motion here, because it is agreed, that in
 the other part of the case my Lord Chief Justice read the act
 of parliament (he had it by his side); and when from those
 words which he read from the act of parliament, he afterwards
 came to employ the word "use," whether he put in the word
 "general" or "public," does not signify, because when he em-
 ployed the word "use," in his observations to the jury, he must
 necessarily have referred to the use which was prescribed by the
 act of parliament; and merely because it is thought that my
 Lord Chief Justice did not sufficiently take off the edge of the
 Attorney General's argument, I for one think that is not a
 ground for a motion for a new trial.

The other judges concurring,

Rule *nisi* granted.

r. Sir N. Tindal, C.J.; Gaselee, J.; Vaughan, J.; Bosanquet, J.

M. T., 1836.

Sir J. Campbell, A. G., Wilde, Serjt., Stephen, Serjt., and *Argument on*
ndmarch, showed cause. First, the jury have found that this *rule.*
 is a new manufacture within the meaning of the statute of
 Monopolies, and therefore there must be a clear reason shown for
 disturbing the verdict on this ground. When the title and spe-
 cification are read together, the various objects for which the
 manufacture was designed are found clearly and intelligibly
 stated. It is true, that before this patent elastic strands were
 well known; but the novelty now introduced is the union of
 elastic and non-elastic strands, so as to produce a limited elas-
 ticity. Fabrics with elastic strands alone may be extended
 until they break, but by the introduction of the non-elastic

Argument on rule.

strands the elastic pressure is limited according to the proportions of the elastic and non-elastic materials. This intermixture of elastic and non-elastic materials was clearly a new manufacture, and it was abundantly proved that the advantages derived from the discovery were very great. The expenditure of the Indian rubber was diminished, and a lighter and more porous article than any which had been known before was introduced. Secondly, the specification is perfectly intelligible, and although more scientific words might have been used in some instances, yet that would have rather increased the difficulty of understanding the subject. It states the nature of the discovery, and the manner in which it is to be carried into effect; and it has never been considered necessary to describe an ordinary loom or machine. But the objection to the specification cannot be made in the present state of the record. The fifth issue alone is relied upon as raising the question. Now in the fifth plea, the defendants say that the plaintiffs did not particularly describe and ascertain the nature of the said invention, and in what manner the same was to be performed, by any instrument in writing. This is equivalent to a plea that no specification was enrolled, but the defendants cannot show that an insufficient specification was enrolled. In *Derosne v. Fairie* (k), there was a plea very similar to the present, but the court doubted whether any objection to the sufficiency of the specification could be made. *Praed v. Duchess of Cumberland* (i) was an action on debt, on an annuity bond, and the defendant pleaded that there was no such memorial as the statute required; to which the plaintiff replied, that there was a memorial containing the names of the parties, and the consideration given. The plaintiff having rejoined, that the consideration was untruly alleged in the memorial, the court held that this was a departure; that a memorial was enrolled, which upon the face of it was a good one, and that if the defendant wished to impeach it, he should have shown in what particular it was defective, and then have compelled the plaintiff to take issue upon that fact. And such a mode of pleading in this instance would be objectionable, not only as being a departure, but as leaving matter of law to the jury: and notwithstanding the decision in *Fisher v. Pembley* (k), it has always been the practice to plead a defect in a memorial according to the rule laid down in *Praed v. Duchess of Cumberland*. And now that the plea of the general issue is no longer in force in the spirit of the new rules, which require all matters to be specially pleaded, it is expedient that the ancient

(k) *Ante*, 154. The question in that case was, whether the objection, that the title was larger than the specification, arose under the plea, and the court intimated an opinion that it did not. *Ibid.* 161.

(i) 4 T. R. 585. The cases of *Morgan v. Mey*, 1 Sid. 180, & *Roberts v. Marriott*, 2 Saund. 188, were cited to the same point.

(k) 11 East, 188.

le of pleading should be resorted to in this instance. The M. T., 1836. e raised is, whether the invention was described by the atiff by any instrument in writing, and not whether the in- ment is sufficient to support the patent, or whether it iciently describes the mode of manufacture, or whether it ns too much.

ir F. Pollock, Cresswell, and Knowles, in support of the rule. t, as to the question of novelty. The plaintiffs are bound support the affirmative of the issue, that the invention is , and was the invention of Sievier. Now the introduction Indian rubber strands into knitted goods was known; and the use of it, as described in Hancock's patent, and in vier's first patent. Covered strands of Indian rubber were intermixed with strands of other materials. So that there nothing new in the materials which were used, nor in the de of preparing them, nor in the mode of weaving them. It been contended, that the alternate mode of placing the nds is the subject of a patent. But if that were so, then a ent might be taken out for introducing a particular number each material, as one elastic strand in combination with ee non-elastic strands. It is quite clear that the substitution one material for another in making a manufacture is insuf- ent to support a patent. Every novelty is not an invention itled to the protection of the statute. A new principle must discovered, skill and ingenuity must be exerted, to entitle an entor to a patent; the making of an old machine of new ma- als could not be a discovery, and the plaintiff could claim protection for an invention, the only merit of which con- ted in being made of brass instead of wood. If a new article re prepared in a new manner, the case might be different; but re an elastic article and a non-elastic article had already been ed in combination, and the only difference is, that a less quantity one than the other is directed to be used. A combination of o things, neither of which is new, is not the subject of a tent, although they might not have been combined before. us, in *Saunders v. Aston* (l), which was a patent for a new tton, *Littledale, J.*, said, "Neither the button nor the flexible ank was new; and they did not, by being merely put to- ther, constitute such an invention as could support this pa- nt." And if a patent fails in one of its objects, it is altogether id; *Brunton v. Hawkes* (m). Secondly, the plea is correctly med to entitle the defendants to object that the specification insufficient. The plaintiffs aver, that they enrolled a specifi- tion containing certain matters. The defendants say, they did

(l) 3 B. & Ad. 881, & ante 75. See ante 409, as the requisites of an invention to be the sub- ject-matter of letters patent.

(m) 4 B. & Ald. 541.

Argument on rule.

not enrol a document containing these matters. That is a question of fact, because it is clearly a matter of evidence, whether the specification be sufficient or not. In *Dudlow v. Watchhorn* (n), the true ground of the decision in *Praed v. Duchess of Cumberland* (o) is stated; and it was held sufficient to aver, that no writ of *capias* was duly issued against the defendant. The new rules of pleading do not make any difference in this respect. In *Wakeman v. Sutton* (p), where a defendant in *assumpsit* pleaded that the contract declared upon was a guarantee for the debt of another, and that no memorandum thereof stating the consideration was in writing signed by the defendant, or any person authorised by him—it was held, that the plaintiff might reply, that a memorandum of agreement in writing, stating the consideration, was signed by the defendant, without setting out such memorandum in the replication. *Lysaght v. Walker* (q) is to the same effect, overruling *Lowe v. Eldred* (r). There is nothing in the specification to show that the Indian rubber strands were to be placed in the same plane, or that they worked independently of each other, and if the article be made without placing the strands in the same plane, then the invention is in all respects similar to that which is described in *Siever's* patent of 1831. *Cur. adv. vult.*

Judgment.

Sir N. TINDAL, C. J.: The discussion on this case arises on a motion to the court to set aside the verdict obtained by the plaintiffs, as assignees of the original patentee, in an action for the infringement of a patent, and to grant a new trial upon three grounds; first, that in point of law the invention for which the patent was taken out was not the subject-matter of a patent; secondly, that the verdict was against the evidence given at the trial; and thirdly, upon facts disclosed in an affidavit. The patent in question, which bore date the 17th of January, 1833, was “for an improvement or improvements in the making or manufacturing of elastic goods or fabrics, applicable to various useful purposes,” and the patentee in his specification, which was enrolled in July, 1833, described his invention in general terms, to be designed for the production of an elastic web cloth, or other manufactured fabric, for bandages, and for such articles of dress as the same might be applicable to, and then described more particularly the three distinct objects which the patentee proposed. At the trial of the cause, it was admitted on the part of the defendants, that the principal ground on which the patent was sought to be impeached, was with reference to the third object described in the specification,

(n) 16 East, 39.
(o) 4 T. R. 485.
(p) 2 A. & E. 78.

(q) 5 Bligh, N. S. 1; 3 Tyr. 234.
(r) 1 Cr. & M. 239.

and the whole of the evidence produced by the defendants, and *Judgment.*
the main part of the argument before us, applies itself to that
object alone. The third object proposed by the patentee was to
produce cloth from cotton, flax, or other suitable material not
capable of felting, in which shall be interwoven elastic cords or
strands of Indian rubber, coated or wound round with fila-
mentous material. The patentee afterwards describes the mode
of effecting the third object to be, by introducing into the fabric
threads or strands of Indian rubber, which have been previously
covered by winding filaments tightly round them through the
agency of an ordinary covering machine, or otherwise, these
strands of Indian rubber being applied as warp or weft, or as
both, according to the direction of the elasticity required; that,
by thus combining the strands of Indian rubber with yarns of
cotton, flax, or other non-elastic material, the patentee was en-
abled to produce a cloth which should afford any degree of
elastic pressure, according to the proportions of the elastic and
non-elastic material. The patentee added, that the strands of
Indian rubber were, in the first instance, stretched to their
utmost tension, and rendered non-elastic, as described in a
former specification to another patent, and being in that state
introduced in the fabric, they acquire their elasticity by the
application of heat after the fabric is made. Now the first ob-
jection made to the patent so described is, that the invention is
not the subject-matter of a patent; that it is neither a new
manufacture, nor an improvement of any old manufacture, but
is merely the application of a known material in a known man-
ner, to a purpose known before. The question, therefore, as to
this point is, does it come under the description of "any manner
of new manufacture," which are the terms employed in the
statute of James. That it is a manufacture can admit of no
doubt; it is a vendible article, produced by the art and hand of
man, and of all the instances that would occur to the mind when
inquiring into the meaning of the terms employed in the sta-
tute, perhaps the very readiest would be that of some fabric or
texture of cloth. Whether it is new or not, or whether it is an
improvement of an old manufacture, was one of the questions
for the jury upon the evidence before them; but that it came
within the description of a manufacture, and so far is an inven-
tion which may be protected by a patent, we feel no doubt
whatever. The materials indeed are old, and have been used
before; but the combination is alleged to be, and if the jury are
right in their finding is, new; and the result or production is
equally so. The use of elastic threads or strands of Indian
rubber, previously covered by filaments wound round them, was
known before; the use of yarns of cotton, or other non-elastic
material, was also known before; but the placing them alter-
nately side by side together as a warp, and combining them by

The particular
combination of
elastic and non-
elastic strands
to constitute a
cloth, is the sub-
ject-matter of
letters patent.

Judgment.

the means of a web when in extreme tension, and deprived of their elasticity, appears to be new; and the result, viz. a cloth in which the non-elastic threads form a limit, up to which the elastic threads may be stretched, but beyond which they cannot, and therefore cannot easily be broken, appears a production altogether new. It is a manufacture at once ingenious and simple. It is a web combining the two qualities of great elasticity and a limit thereto.

The second objection to the verdict is, that it is against the evidence. The only issue to which this objection has applied itself in the course of the argument, is the issue, whether the invention was new as to the public use thereof in England. Now the evidence at the trial which applied itself to this question consisted of two perfectly distinct heads or classes; the documentary evidence of former patents and specifications, and the parole testimony of the witnesses. It was urged that the present invention was, in the whole, or a material part of it, already known to the public, by the specification to the patent obtained by *Hancock*, which was enrolled in Aug. 1820, and the specification to the former patent enrolled by *Siever* in June, 1832^(s). As to *Hancock's* patent, it is manifest that, if it applied at all to the invention for which the patent now under discussion was taken out, it applied only to the first object stated in the specification, all contention as to which object was given up at the trial. But the description in *Hancock's* patent shows a material distinction between his discovery and that of *Siever*. *Hancock's* patent was taken out for a discovery "of the application of a certain material to certain articles of dress, by means of which the same may be rendered more elastic," and the mode by which this was effected is described in the specification, to be that "of applying strips of Indian rubber into cases or pipes formed in the article after it was complete." The first object of *Siever's* patent, is that of introducing the cords or strands of Indian rubber between the loops or stitches of the fabric, so as to form a constituent part of the fabric itself; and as to the former patent of *Siever*, it was a patent taken out for the making of cables, ropes, whale fishing and other lines, lathe and rigging, bands, bags, and purses, of filaments or threads of Indian rubber, covered with cotton or other materials; the bands and bags were to be knitted, not woven, and there was no attempt to mix with them any non-elastic material to strengthen them, or to form a limit to their elasticity, or for any other purpose. These patents, therefore, do not by any means, as it appears to us, impeach the novelty of the present invention. As to the evidence of the various witnesses brought forward on each side

(s) See the material parts of these specifications, *ante* 499.

at the trial, it must be admitted that there was evidence on both sides. The question raised for the jury was this: whether the various instances brought forward by the defendants amounted to proof, that before or at the time of taking out the patent, the manufacture was in public use in England; or whether it fell short of that point, and proved only that experiments had been made in various quarters and had been afterwards abandoned? This question is, from its nature, one of considerable delicacy; a slight alteration in the effect of the evidence will establish either the one proposition or the other, and the only proper mode of deciding it is by leaving it to the jury. On the present occasion they heard the evidence patiently, and appeared to apply it with intelligence, and we can see no reason to be dissatisfied with the conclusion at which they arrived.

With respect to the third ground upon which the rule to show cause was obtained in this case, viz. that since the trial the defendant has discovered a patent taken out by one *Desgrand*, the patent being sealed in November, 1832—without entering into the question, whether the invention for which the patent in dispute was taken out, was or was not described in the specification of *Desgrand*, we think it sufficient to observe, that this specification was not enrolled till May, 1833, whereas the article made under the plaintiff's patent was publicly made and sold on the London market, to a very large extent, in March and April of the same year, and although the specification of *Sievier's* patent was not enrolled till July, 1833, we think the mere fact of the enrolment of *Desgrand's* specification after the plaintiff's patent was sealed, and his discovery known upon the market, does not of itself alone afford any proof whatever of the want of novelty in the manufacture made under the plaintiff's patent (t). We therefore think there is no ground for disturbing the verdict, and that the rule for a new trial must be discharged.

Rule discharged (z).

(t) The specification relating back to the date of the letters patent, the invention disclosed in the specification is to be referred to such date; the consequence of which is a temptation to fraud, by inserting in the specification of a patent inventions borrowed from others, and for which letters patent of a subsequent date have been obtained. The above decision is an authority, that the date of the letters patent is not conclusive evidence of the priority of invention as to its public use and exercise.

(x) A writ of error was brought on this judgment, the error assigned being, that it did not appear by the declaration (*ante* 501) that the assignment to *Cornish* was by deed, by which alone an interest in letters patent could be conveyed; and consequently, that it was not shown that any joint damage had been sustained.

The Exchequer Chamber held the declaration sufficient after verdict.

The question of public use is entirely for the jury.

The specification of a prior patent, enrolled after granting a subsequent patent, and containing part of the invention claimed by such subsequent patent, is not conclusive against its validity.

GALLOWAY'S PATENT.

Title. Letters patent, 18th August, 1835, to E. Galloway, for "certain improvements in paddle wheels for propelling vessels."

Specification. My invention relates to the methods of affixing the floats or paddles of paddle wheels, whereby I am enabled more advantageously to apply the power of the engines, and at the same time in a great measure prevent concussions with the floats or paddles in entering, and avoiding lifting so much water on leaving it, by which means the swell, heretofore so prejudicial, is in a great degree avoided. But in order that my invention may be most fully described and readily applied to the varied circumstances of different vessels, I will first explain the diagram, having, however, first stated, that in constructing wheels to new vessels it will be necessary to make the calculations precisely in the same way as if ordinary fixed radial floats or paddles were to be used, in order to ascertain the quantity of surface for the floats or paddles with reference to the number of strokes of the engine, its power, and the desired velocity to be obtained to the vessel; but in place of having the whole depth of the float of one unbroken area, the floats as used by me are in divided portions, and it is the method of arranging such divided floats according to the principle hereafter described, which constitutes the invention secured by the present letters patent. * * (a).

It should be remarked that since the sealing of my said letters patent, I have been informed that Joshua Field, Esq., engineer, of Lambeth, some years before the date of my said patent, made an experiment of a paddle wheel on a small vessel belonging to him or his partners, called the 'Endeavour,' the floats of which were divided into portions—but they are not fixed according to the principle, the application of which constitutes the object of my invention—and which experiment I have been informed, and from the nature of the construction of the wheel I verily believe, was declared by him to be a failure; and I have only thus

(a) The specification then proceeds to describe, by reference to drawings, the method of affixing the divided floats. The following explanation may be useful. There are two circles, an outer *aa*, and an inner *bb*, about the same centre. The circumference *aa* represents the course of the outer edge of the floats as the wheel revolves. The circle *bb* is supposed to be of such a radius that its circumference will represent the measured distance through which the vessel moves each revolution of the paddle wheel. The circle *bb* being supposed to roll on the water line, any point *d* in its circumference in such circle will describe a cycloid, and the portion *dg* of the cy-

cloidal curve intercepted between the imaginary circle *bb* and the circle *aa* through the outer edge of the floats, that is, the circumference of the wheel, is the curve upon which the centres of the portions of the divided float boards are to be fixed as radial floats, the plane of each divided float board coinciding with a radius of the wheel. Each set of floats arranged in this manner will enter the water nearly at the same point, and the shock occasioned by a float board with one continuous surface entering the water be almost entirely avoided, and the float boards act nearly as a solid float board.

did this experiment in order to state that I do not claim the *Specification*. exclusive use of divided floats or paddles, unless they be applied to paddle wheels according to the principle herein described; and in order to point out more accurately the difference of a wheel constructed according to my invention and that experimented on by the said Joshua Field, I have annexed a drawing of a portion of the said wheel so used in the 'Endeavour,' sufficient to show the principle thereof, but on inspecting the same drawing, it will be evident that the portions of the floats are not affixed according to the method described and claimed by me (b).

I would in conclusion wish it to be understood, that I lay no claim to the various parts of paddle wheels herein described and generally well known, when the same are not combined according to the method of affixing the portions of floats as herein explained; and I do declare that my invention consists in fixing the portions of floats or paddles according to the arrangements herein described.

In witness, &c.

GALLOWAY & ANOTHER v. BLEADEN, *Secretary of the Commercial Steam Packet Company.*

Cor. Sir N. Tindal, C.J.

29th and 30th November, 1839.

The declaration, after stating the grant of the letters patent, *Declaration.* and the enrolment of the specification, and the assignment of a half-part or share to *Routledge*, assigned as breaches, that the said company (c) made paddle wheels for propelling vessels on the said improved plan or principle, and in imitation of the said invention; used and put in practice paddle wheels in imitation of the said invention; counterfeited, imitated, and resembled the said invention; made paddle wheels, with other improvements in the construction thereof, intended to imitate and resemble, and which did imitate and resemble, the said invention. The defendant pleaded—1. That the said company were not *Pleas.* guilty. 2. That the plaintiff *Galloway* was not the true and first inventor. 3. That the said invention, &c., was not particularly described, &c., by the specification. 4. That the said invention

(b) In the subsequent legal proceedings on this patent, there was contradictory evidence on the question of the similarity of the arrangement of the divided floats in the two wheels; but the question left to the jury was, whether the wheel

of the 'Endeavour' was an experiment, which had failed and been abandoned, or a complete and perfect invention.

(c) See *post* 529, as to the amendment of the declaration.

Pleas.

was not a new invention or manufacture within the realm, but had been and was publicly practised and used by others before and at the date of the said letters patent.

Notice of objections.

The following was the notice of objections:—1. That the said E. G. was not the first and true inventor of the said improvements, for which the patent in the declaration mentioned is alleged to be in force, but that all said improvements before the date and grant of the said letters patent had been and were invented, used, and in practice, by Messrs. M. and F., or one of them. And that the use of divided floats, applied according to the principle or mode described in the writing or specification in the declaration mentioned, was discovered, invented, and in practice, by the said Messrs. M. and F., or some or one of them, before the date and grant of the said letters patent. 2. That the said alleged invention, for which said patent was granted, is not an invention of any new manufacture within this realm, but is merely an invention of a principle; that is to say, the principle of arranging the floats of paddle wheels in divided portions, and in a form calculated to displace the least possible quantity of water in their immersion, and not for any specific means of applying that principle to practical purposes; and that said patent is calculated to prevent the said principle from being investigated and usefully applied by others. 3. And that the specification of said patent does not sufficiently describe and ascertain the nature of the invention, and in what manner the same was or is to be performed; and is ambiguous, obscure, and insufficient in this, that the specification does not give or suggest any specific means of determining the supposed point, called *l* (in the drawings accompanying said specification, No. 1), at which it is necessary to place the floats at a less angle to the radius of the wheel than the angle *lde*; nor does said specification state or show at what angle it is that said patentee places the bars or floats in such positions, that they will be nearer to each other than said position therein called *d* to *l*; nor does said specification state or show at what angle, or in what line, whether curved or straight, said bars or floats are to be placed, when the space between any two of them would be too great if arranged in the cycloidal form. 4. And that the principle of the said patent, and the application of that principle, had, previously to the date and grant of said letters patent, been discovered and known and used by Messrs. M. and F., or one of them; and also that said specification is too large and extensive, and claims too much, inasmuch as it includes a certain invention of a similar kind, made, used, and put in practice, previously to the date and grant of the said letters patent, by the said Messrs. M. and F., or one of them, and would, if valid, prevent the exercise of the said invention.

Sir J. Campbell, A. G., Richards, and M. Smith, were counsel

for the plaintiffs; *M. D. Hill* and *R. Alexander*, for the defendant. The nature of the case and the evidence will sufficiently appear from the summing up of the learned judge.

Sir N. TINDAL, C.J.: Gentlemen, this is an action against *The summing* the Secretary to the Commercial Steam Packet Company, to recover nominal damages for the infringement of a patent for certain improvements in paddle wheels for propelling vessels. In answer to this action the defendants set up three grounds of defence: First, they say they are not guilty, that is, in other words, that the paddle wheels they have employed in the 'Chieftain,' and the other ship called the 'Grand Turk,' are not an infringement of the patent; then they say that the nature of the invention, and the manner of its performance, have not been fully described in the specification. Now that is a good answer at a point of law; it is a condition on which the party to whom the patent is granted obtained it; and it being a condition, it must be performed strictly, that is, he must communicate by his specification to the world, a sufficient mode of making this improvement, of which he has the exclusive privilege for the fourteen years, in order that, when the patent has expired, the public may have the full benefit of it on reference to that specification. The third and remaining ground of the defence is, that the supposed invention was not a new invention, but was used in England before the grant of the patent; that again is a sufficient answer to the validity of the patent, if the crown was deceived, intending only to grant a patent to the original inventor of a commodity or thing that was not generally known or used in England before.

Now, with respect to the first, that the wheel is not an infringement—that the paddle-wheel used by the defendants is no infringement of the patent granted to Mr. Galloway—the evidence is in a very narrow compass. There have been two witnesses called on the part of the plaintiffs, viz. Mr. Carpmael and Mr. Cottam, and they were asked, having read the specification and seen the model which was produced before them, whether the wheels of the 'Grand Turk' and the 'Chieftain' are not an infringement, a copy made after and agreeing with the principle laid down in the patent; and they unequivocally say, they think they are. No witnesses have been called on the other side to whom that question has been distinctly put, who have been asked whether they believe it to be an infringement or not, but every witness was asked this question, whether it agreed with a certain wheel that had been supposed to be invented or discovered by Mr. Field, in 1833, and put on board the 'Endeavour.' That was the way in which every question was put; not a distinct question so as to bring forth a distinct answer on the subject of the infringement, but putting it in that collateral way, meaning, as the defendants contend, that the plaintiff's inven-

As to the infringement.

The summing up.

tion is borrowed from the one which was known before; virtually, therefore, they wish to show that the two inventions were in fact the same; but it certainly appears to me, that as they did not put the question distinctly and directly, whether, in the opinion and judgment of the defendants' witnesses, such infringement had taken place or not, that they rather fortified the plaintiff's case than weakened it, by drawing out from their witnesses, that it was made on the same principle as the wheel that was put on board the 'Endeavour,' it being a main part of their case that this was a discovery which the plaintiff *Galloway* has since adopted and got a patent for.

As to the sufficiency of the specification. A studied or manifest ambiguity will vitiate.

The next answer that is put on the record is, that the plaintiff *Galloway* did not so describe the matter in the specification as by law he was required; that he has not, in the language of the plea, truly described his invention; and if there is a want of clearness, so that the public cannot afterwards avail themselves of it, much more if there is any studied ambiguity in it, so as to conceal from the public that which the patentee for a term is enjoying the exclusive benefit of, no doubt the patent itself would be completely void. This is also a question to be determined on the evidence brought before you. If it had appeared on the face of this specification, that it was so manifestly ambiguous in the terms used, as that no person of ordinary sense and judgment on reading it could make out what the party professed to disclose and was bound to disclose, then the specification would not be a compliance with the patent; but it does not appear to me at all, upon looking at it, that there is such doubt and difficulty in the construction of the specification itself. There has been a great deal of stress laid on what we heard so often—the coincidence of the rolling cylinder, which is to represent the rate of going of the vessel, and the wheel which forms the circle or boundary of the lower part of the floats—and a great many observations have been made, that certain cases that may occur are not provided for in the specification. It does not, I confess, appear to me on the face of the specification that such is the necessary conclusion, because you are to take it, not by itself, but with reference to the figures; and when you look at that figure which is called Fig. 1, and compare it with the statement made in the specification, I confess I am unable to say, on merely perusing it, which is all I am bound to say, that there is that degree of difficulty, or, in fact, that I feel any great difficulty, on the subject. But the main question on this point is for you, and that is, whether it is such a fair and clear statement, that a person with a competent degree of knowledge upon the subject-matter to which the patent relates, would be able to make that which the plaintiff now enjoys the exclusive privilege of. The two first witnesses state, that in their judgment, a perusal of this by a workman, employed in

manufactures of this nature and description, would qualify him A. D. 1839. to make a wheel of the nature of those, in the same manner, and with the same properties as those, which the plaintiff at present enjoys under the patent. I do not find that even that is broken in upon by the other side, for there is no witness called to whom that question is put, except Mr. Field; and Mr. Field's answer to one part of it, where the question is put to him, is this—he says, “I have read the specification, and looking at the specification (which was the main point that was put to him about the rolling circle), I think the rolling circle and the inner circle of the floats are intended to be the same circle.” He says, it is not expressed in the specification, whether d belonged to the rolling circle of the edges of the floats. If it belonged to the rolling circle, all he says is this, I do not think a workman would know whether the point d was the point belonging to the inner circle, or the rolling circle:—that is his judgment. If you have had an opportunity of looking at the figures as connected with the specification, I confess in my mind it does not appear a subject-matter of doubt that that d is the point that is formed by the surface of the common radial float with that inner circle, and this only gives you the point upon which to set off, on such occasion, to form your cycloid for the new form of floats, provided that may or may not be the case.

Now, gentlemen, the third and last is the main point in this case, whether this was an invention new at the time, or whether this improvement was new as to the public use and exercise thereof in England. The date that I have to call your attention to is the date of the patent, namely, the 18th of August, 1835; what you have to ask yourselves is, whether, on the evidence, that which Mr. Galloway has described in his specification was new at that time; or whether it was known and practised before in the realm of England. Undoubtedly, if it was, there is an end of the patent; upon that point the law is undoubtedly now understood to be this—a mere experiment, or a mere course of experiments, for the purpose of producing a result which is not brought to its completion, but begins and ends in uncertain experiments—that is not such an invention as should prevent another person, who is more successful, or pursues with greater industry the chain in the line that has been laid out for him by the preceding inventor, from availing himself of it, and having the benefit of it; therefore, the main point in this case is, whether all that is allowed to have been done by Mr. Field rested in experiment, and unsuccessful experiment not conducted to its full result, or whether it was a complete discovery of that which now forms the subject-matter of the patent. On that, the evidence of Mr. Carpmal and Mr. Cottam is, as you will suppose, only general, because they are called to negative that this was known before. Therefore,

As to the invention being in use before and at the time of the patent being granted.

Experiment not brought to completion, or conducted to a full result, will not vitiate the patent of a more successful person in the same line.

we put a paddle upon it; this paddle is suited for the sea, and A. D. 1833 not for fresh water; we put one fresh paddle on the wheel of the 'Endeavour;' the result was, the agitation of the water was quite removed, or scarcely perceptible: we continued the experiment (as he called it), for some weeks; we then restored the former wheel." It is afterwards explained, that the reason why this wheel was taken away, and the old one restored, according to the captain's account, was because the boiler was not large enough to make steam sufficiently fast for this, which had a quicker rotary motion. Then he goes on to say, that in 1835 a great many experiments were made. "I got this original knowledge in the year 1833." And when we are discussing whether he had brought that to any degree of perfection, at that time, so as to be a matter that was known, and capable of being applied to vessels at all, it is odd and singular enough (but that will be for your consideration), that he should go on in 1835 making a great many more experiments. He says, "In 1835, we made a great many experiments, of which the general character was to ascertain the various qualities of wheels, chiefly cycloidal wheels, and comparing those wheels with Morgan's wheel. I had a very extensive apparatus constructed for the purpose of these experiments; it stood in a very public part of the premises, no person was excluded, a great many saw it, it was in the thoroughfare of the manufactory. We had between 400 and 500 employed at that time in our manufactory." He says how the apparatus was constructed (which I think was not very material), but that apparatus they constructed merely for the purpose of deciding upon these experiments. Then he says, "These experiments were made between the 16th of April and the 12th of June, 1835. We had a person solely employed in these experiments; no secrecy whatever was observed; on the contrary, we invited people to come and see them. I first heard of the patent taken out by Mr. Galloway, on the 8th of September, 1835. I remember a model put up by him in the Adelaide Gallery." It appears, therefore, from the month of September, 1835, Mr. Field was fully conscious that there had been this patent granted to Mr. Galloway, and we do not hear of any opposition to it for a very considerable period afterwards. Indeed, these defendants, a year afterwards, so little are they informed, or so little do they know, that there had been a doubt as to the validity of the patent, that they pay for the use of these floats, for a vessel of theirs called the 'Calpe,' £40—having previously, in the years 1835 and 1836, just after the granting of the patent, had the same patent improvement applied at a much larger sum to other vessels. Then he says, "I have carefully examined the specification of Mr. Galloway; I have seen the models produced; the principle laid down in that specification is precisely the same as mine; I had the same object in view—

*The summing
up.*

that of arranging the floats in a cycloidal curve; I have not been able to find in Mr. Galloway's specification any thing whatever different to what I had in view, except what I had before; the advantages mentioned in his specification, are the very same advantages that I contemplated and proposed." Gentlemen, then he is cross-examined as to this point, and he says, I have taken out patents myself, altogether three, one of them a little time ago; the idea crossed my mind for taking out a patent for this discovery. I entered a caveat for my discovery in 1833. I never did any thing upon it. It is now a very valuable wheel, it is now in general use; a valid patent for such a wheel would be very valuable to the patentees, it would be valuable to me; I continued making experiments till July, 1835." Certainly it is not an improper observation, one that you should bring before your own minds on this question, that is, whether it was the invention of Mr. Field before Mr. Galloway, and an invention carried so far to perfection, that the matter might be known and used in England?—that as he had entered a caveat at the office of the law officers of the crown, he must have had notice of this—the patent would not have passed without some notice given to him, that such patent was taken out; and yet you see, though he had put in his caveat in the year 1833, and made experiments from April to June, and goes on making experiments to 1835, he does not at all interpose, or set up his claim at that time to take out a patent. I do not mean to say he was bound to do it, or that his not doing it will decide this question at all; but when we are considering the course that men ordinarily pursue in looking after their own interest, the question is, whether he is perfectly to be depended on as to the exact identity of this discovery—that this, which is now the subject of a patent, was the very discovery which he himself had made? That is for you, and not for me, to determine. Then he goes on to say, "I continued making experiments till July, 1835. I never fitted up a vessel for a customer till the 'Dovor Castle,' that was the name of it; the wheels were afterwards altered from three boards to two, and so they continued. That vessel did not go faster nor slower than before, but the vessel was better for the sea; she was always a slow vessel. The next vessel we fitted up with split boards was the 'African;' that was in the summer of 1836." That is, after the period when this patent is granted; therefore, any thing that is done after that, if it is a wheel of the nature and description of that for which the patent is granted, that is not to be brought in evidence against the plaintiff, as a prior discovery, except so far as that the party who gives the evidence says that it was upon his own principle, and not upon the principle of the patent. The mere fact of applying it so late as the year 1836, the year after the patent was granted, would not of itself,

of course, show that the subject-matter had been known and A. D. 1839. used in England a year before. Then he says, "I am not quite positive that I fitted up any but the 'Dovor Castle' with wheels on this construction. I fitted up the 'Great Western' with wheels of this construction in the year 1838; the wheel is now in great repute; I had no knowledge of the floats being divided in this way before I did so myself. I did nothing for the Admiralty before August, 1835." Then, in fact, he says, "I did not do it till the summer of 1836. I did take off the new wheel, after having satisfied myself with the experiment, and I put on the old boards again." He says, "We did nothing in 1833, 1834, and 1835; in 1835 we commenced our experiments, and we still continued to make comparative experiments." Then he goes on to say something more as to the specification, which is not material (*d*).

The point, as it seems to me, for your consideration is, whether you are satisfied or not, that, at the time when this patent was taken out, the invention for which the patent was obtained was a new invention, and not used publicly in England, which are the words of the plea? That there had been many experiments made upon the same line, and almost tending, if not entirely, to the same result, is clear from the testimony you have heard; and that these were experiments known to various persons; but if they rested in experiment only, and had not attained the object for which the patent was taken out, mere experiment, afterwards supposed by the parties to be fruitless, and abandoned because they had not brought it to a complete result, that will not prevent a more successful competitor, who may avail himself as far as his predecessors have gone of their discoveries, and add the last link of improvements, in bringing it to perfection. If that is the case, the plaintiffs are entitled to your verdict. If it was then known, at the time when the plaintiff took it up, and was publicly known and used in England, then in that case the patent is invalid, and in that case you would find your verdict for the defendant. If you find it for the plaintiffs, it will be only nominal damages; the question is not here for any profits, but simply to decide the right between the parties.

Experiment abandoned or not conducted to a successful issue, will not prejudice a more fortunate competitor, who adds the last or required link.

Verdict for the plaintiffs (*e*).

(*d*) His lordship read the evidence of the other witnesses who had been called as to some of the matters spoken to by Mr. Field, but this evidence is not material to be stated.

(*e*) No application was made to the court to disturb the verdict; but a rule was obtained calling on the plaintiffs to show cause why judgment should not be arrested, on the ground that the declaration was defective, no right of action being shown against the defendant on the record; there

being no allegation that he was the registered officer of the Company, pursuant to the act of parliament, 7 W. 4, & 1 Vict. c. 73. On a subsequent day the plaintiffs obtained a rule, calling on the defendant to show cause why the record should not be amended by inserting the proper allegation in the declaration. The court made the latter rule absolute on terms of the plaintiffs paying the costs of both rules, and foregoing the costs of the action. See *Galloway v. Bleaden*, 1 M. & G. 247.

CARPENTER'S PATENT.

Title. Letters patent, 18th January, 1830, to J. Carpenter and J. Young, for "certain improvements in locks and other securities applicable to doors and other purposes."

Specification and disclaimer. The invention described in the specification consisted of two kinds of improvements in locks, and of improvements in hinges. By disclaimer and memorandum of alteration, enrolled 15th of July, 1839, one class of improvements in locks and the improvements in hinges were disclaimed, and the words "other securities" in the title were also disclaimed; the remaining improvement consisted of a combination of a sliding bolt and lever latch; the latch having one side of its face sloped off and moving up an inclined plane on the striking part of the staple, and then falling suddenly into the box of the staple. One feature of the improvement was the use of a piece of metal (marked E), by which the latch could be lifted, and the bolt of the lock unlocked, from the outside.

 CARPENTER v. SMITH.

M. V., 1841.

Cor. Lord Abinger, C.B.

Declaration. The declaration set forth the specification and disclaimer, and assigned breaches after the entering of the disclaimer in respect of the part of the invention not disclaimed.

Pleas. The defendant pleaded—1. Not guilty. 2. That the plaintiff was not the true and first inventor of the part not disclaimed. 3. That the part not disclaimed was not a new invention as to the public use and exercise thereof. 4. The insufficiency of the specification. 5. That the invention not disclaimed was not a new manufacture within the proviso of the statute.

Objections. The following notice of objections was delivered with the pleas:—1. That the plaintiff was not the first and true inventor of the said alleged invention, or for which the said letters patent were granted. 2. That the said alleged invention was not a new invention as to the public use thereof in England at the time of the grant. 3. That the specification set forth in the declaration is insufficient, inasmuch as it does not set out what parts are old and what new of the lock; and also, inasmuch as it disclaims the separate parts of the lock, without saying what is intended to be claimed, while the title of the patent is for improvements in locks only; at the same time,

Lord Abinger, good, by striking out the objectionable parts of the specification.
 C.B., to the jury. But the objection to his specification originally, is plain on the face of it, and it was this—it is required as a condition of every patent, that the patentee shall set forth in his specification a

The specification must distinguish between new and old; if not, the presumption is that the patent extends to the whole and to each part.

true account and description of his patent or invention, and it is necessary in that specification that he should state what his invention is, what he claims to be new, and what he admits to be old; for if the specification states simply the whole machinery which he uses, and which he wishes to introduce into use, and claims the whole of that as new, and does not state that he claims either any particular part, or the combination of the whole as new, why then his patent must be taken to be a patent for the whole, and for each particular part, and his patent will be void if any particular part turns out to be old, or the combination itself not new. Now, as the patent stood originally, he neither claimed the combination nor the specific parts, but when he comes to make the disclaimer, in the year 1839, he disclaims the particular parts; but I will not call your attention to them, because they are not material, but he retains his claim to Fig. 2, and disclaims the particular parts; he says, “the latch is not new, the bolt is not new,”—but it is plain that he claims the rest. Now the rest either means the combination, or it means a combination within a combination, such as it was that he claimed as his patent. Now that combination, as it is set forth in his figure, as well as in his patent, consists of a certain brass plate, which is marked with the letter *ε*, and which serves to confine the movements of the two bolts, that is, of the latch and the bolt latch together, if the party chooses so to use them. But he certainly states that he may use them separately, without the plate *ε*, in which case it is admitted that the brass plate marked with the letter *ε* would not be required. But then his counsel says, that the claim is sufficiently large to entitle him to the combination independent of that. Now that is a question upon which I entertain very considerable doubt, that is a question open for future discussion, but we assume, for the purpose of trying the question before you, that he may claim a patent for a combination, independent of that brass plate marked with the letter *ε*, which it is admitted the defendant has not used. Why, then, what is the combination he claims? he does not say that he claims (at least, he does not say in terms that he claims) the combination of the box and the sliding inclined plane in the box; he does not say he claims that as a part of his combination; but you are to collect that in the specification from his figures. But, as I understand it, he certainly claims the combination of the two bolts in one frame, and I do not deny that, according to the evidence he has given, he has proved that there is more advantage in having them in one frame than in two; we must take that for granted,

that the advantage here is not questionable. Well, but then A. D. 1841. does he claim the combination in that precise and particular form and no other?—because, unless he goes on in his specification, and says, “I claim the combination in the precise form I have stated, but I do not claim the combination in any other form whatever,” his claim in general is for the combination of the two bolts in one frame—the one the bolt, and the other the latch. Now on that subject the counsel for the defendant says, “I deny that that combination is new—I deny that it is new in its parts, and I deny that it is new in the combination.” That is the plea. The pleas are changed in two or three different ways, but that is the substance of the pleas. The plaintiff has certainly given evidence to show that the witnesses who have been called had never seen the combination before—but their evidence goes further than that; for Mr. Carpmael and Mr. Bramah both distinctly say, not only that they have never seen the combination before of the two bolts in one frame, but they both say that they never before saw a lifting latch that was raised up by an inclined plane on the box, and by a bearing off of the edge of the latch, so as to accommodate the inclined plane, and to make it rise more easily and get into the box, and hold it fast. Mr. Carpmael says, in terms, that he had never seen that before; Mr. Bramah says the same thing, that he had never seen that before. Now, I desire you to dwell with some attention on that, because a great deal of argument has been urged here, and a very ingenious reply has been addressed to you by the plaintiff’s counsel, and witnesses have been called, some of them persons of great science and extensive knowledge, and these witnesses have been called to prove that they never knew this before; from which you are desired to infer, that it could not have been known before to any purpose or effect whatever. Why the same persons who tell you they never knew the combination before, also tell you that they never knew the particular part in its present form before, that is, the latch; when you find from other evidence, that that form was well known, that that form was known to other persons, who had introduced it into practice, at least it is an argument to show, that the knowledge of these gentlemen, however intelligent they may be, is not to be altogether relied on. Mr. Carpmael was evidently surprised to see the lock put into his hand from the Martello Tower, and admitted that he had never seen any thing like it before. I think there are several instances which I might allude to, which show with respect to the form of the latch, and the mode of its being got in the box, that that has been used before. Then what is it that is new? It is the combination that is new; that part is not new. The box has been proved sufficiently to have been used before in that form, or on the same principle—Mr. Carpmael admits it; therefore, it

Lord Abinger, is the combination which is new. Now, is the combination *C.B., to the jury.* new? Upon that you had the evidence of the opinion of many witnesses on behalf of the plaintiff, that it was not known before, and that they did not know it before. You have also the facts adduced by the defendant's counsel.

A public use and exercise, not a use and exercise by the public.

But, gentlemen, before I come to consider these facts, and apply them to the evidence, I must beg leave to make an observation upon a very important part of the address of the counsel in reply, because I think it is my duty that you should not give your verdict under any mistaken impression of what the law may be. The plaintiff's counsel has referred to the words of the statute, to show that the words "public use and exercise" formed a part of the patent, from which he desires you to take the definition of what he calls the legal meaning of the word "new," and he draws this inference—that unless it has been in public use and in public exercise before, it is new.

I repeat the words, that there may be no mistake; the inference he draws from it (for I took his words down at the time) is this—that unless it was in public use before, and there was a public exercise of it before (that is, exercised by the public before), it is new. Now, I differ altogether from the learned counsel in that respect; and I think what is meant by "public use and exercise," as has been held by my predecessors before (and I think one's own common sense leads one to adopt that definition), is this;—a man is entitled to a patent for a new invention, and if his invention is new and useful, he shall not be prejudiced by any other man having invented that before, and not made any use of it; because the mere speculations of ingenious men, which may be fruitful of a great variety of inventions, if they are not brought into actual use, ought not to stand in the way of other men equally ingenious, who may afterwards make the same inventions, and apply them. A great many patents have been taken out, for example, upon suggestions made in a very celebrated work by the Marquis of Worcester, and many patents have been derived from hints and speculations by that ingenious author. But yet, as he never acted on them, as he never brought out any machines whatsoever, those patents are good. So that the meaning of the words "public use" is this—that a man shall not, by his own private invention, which he keeps locked up in his own breast, or in his own desk, and never communicates it, take away the right that another man has to a patent for the same invention. Now "public use" means this—that the use of it shall not be secret, but public; and in that sense I must say, that if you think the lock used by Mr. Davies is a lock which combines the same thing (I do not say whether it does or not; that is left entirely for your consideration), I think that is a public use of it, and is within the meaning of this clause of the patent—"public use

Public use is, that the use shall be public as contradistinguished from secret.

and exercise," as used in opposition to private and secret use. A. D. 1841. Therefore, if a man invents a thing for his own use, whether he sells it or not, if he invents a lock and puts it on his own gate, and has used it for a dozen years, that is a public use of it. If it were otherwise, see what the consequence would be: Mr. Davies has a lock, which he has directed to be made (we may suppose that to be the case), and put on his gate some twenty years ago—sixteen years ago at least; if that was not a public use of it which prevented a man from taking out a patent, any man might go and take a model of that lock, and get a patent for it. How can he be the inventor of it?—because, to obtain a patent, a man must be the inventor; and if it has been once in public use (that is, used in a public manner, not used by the public), yet if it has been used by half a dozen individuals, or one, in a public manner, any man having access to it, how can he be said to be the inventor, if by merely gaining access to that he takes out a patent? For recollect that the words of the statute show that the patentee is to be the inventor; and one of the questions which you have to try is, whether he is the inventor, as well as whether there is any novelty in the invention. A man cannot be said to be the inventor of that which has been exposed to public view, and which he might have had access to if he had thought fit (b).

Again, gentlemen, the learned counsel laid it down as a proposition, that if an invention is made, and actually used by a certain number of people, but does not get into public currency and use for twenty-four years or twenty-five years—not brought into activity—that that will not stand in the way of another man taking out a patent for the same invention. I cannot accede to that view of the law at all; I think that is not the law; nor do I think that any of the summings up of the learned judges which have been read to you, that you might understand what the law was, at all support him in that proposition (c). Well then, again, he considers that the evidence of the locks proved to have been made by the two Walkers, and by Mr. Tilsley, supposing them (which he seems to admit) to be the same invention as the plaintiff's, to rest on the same foundation, for he says, because they were made for a foreign market, they do not stand in the way of the plaintiff's invention. Now, gentlemen, you will understand this—a man has a right to a patent, not only for his own original invention, but he has a right to a patent if he is the first person who brings into England an invention which is

(b) The learned judge has not adverted to the question, whether, supposing no presumption that such subsequent patentee had seen the prior lock, or supposing it to be proved that such patentee was an original inventor, and that the article had been used to a very limited extent, and in such a manner as to render the presumption of any one having become acquainted with its construction

highly improbable, such independent inventor and introducer could not have a valid patent. The two issues would appear to be distinct. See *per* Lord Tenterden, C. J., *ante* 492; and *per* Sir N. C. Tindal, C. J., *ante* 507-8.

(c) The following cases were cited: *Lewis v. Marling*, *ante* 496; *Jones v. Pearce*, *ante*, 121; and *Cornish v. Keene*, *ante* 508.

The summing up.

tion is borrowed from the one which was known before; virtually, therefore, they wish to show that the two inventions were in fact the same; but it certainly appears to me, that as they did not put the question distinctly and directly, whether, in the opinion and judgment of the defendants' witnesses, such infringement had taken place or not, that they rather fortified the plaintiff's case than weakened it, by drawing out from their witnesses, that it was made on the same principle as the wheel that was put on board the 'Endeavour,' it being a main part of their case that this was a discovery which the plaintiff *Galloway* has since adopted and got a patent for.

As to the sufficiency of the specification. A studied or manifest ambiguity will vitiate.

The next answer that is put on the record is, that the plaintiff *Galloway* did not so describe the matter in the specification as by law he was required; that he has not, in the language of the plea, truly described his invention; and if there is a want of clearness, so that the public cannot afterwards avail themselves of it, much more if there is any studied ambiguity in it, so as to conceal from the public that which the patentee for a term is enjoying the exclusive benefit of, no doubt the patent itself would be completely void. This is also a question to be determined on the evidence brought before you. If it had appeared on the face of this specification, that it was so manifestly ambiguous in the terms used, as that no person of ordinary sense and judgment on reading it could make out what the party professed to disclose and was bound to disclose, then the specification would not be a compliance with the patent; but it does not appear to me at all, upon looking at it, that there is such doubt and difficulty in the construction of the specification itself. There has been a great deal of stress laid on what we heard so often—the coincidence of the rolling cylinder, which is to represent the rate of going of the vessel, and the wheel which forms the circle or boundary of the lower part of the floats—and a great many observations have been made, that certain cases that may occur are not provided for in the specification. It does not, I confess, appear to me on the face of the specification that such is the necessary conclusion, because you are to take it, not by itself, but with reference to the figures; and when you look at that figure which is called Fig. 1, and compare it with the statement made in the specification, I confess I am unable to say, on merely perusing it, which is all I am bound to say, that there is that degree of difficulty, or, in fact, that I feel any great difficulty, on the subject. But the main question on this point is for you, and that is, whether it is such a fair and clear statement, that a person with a competent degree of knowledge upon the subject-matter to which the patent relates, would be able to make that which the plaintiff now enjoys the exclusive privilege of. The two first witnesses state, that in their judgment, a perusal of this by a workman, employed in

manufactures of this nature and description, would qualify him A. D. 1839. to make a wheel of the nature of those, in the same manner, and with the same properties as those, which the plaintiff at present enjoys under the patent. I do not find that even that is broken in upon by the other side, for there is no witness called to whom that question is put, except Mr. Field; and Mr. Field's answer to one part of it, where the question is put to him, is this—he says, “I have read the specification, and looking at the specification (which was the main point that was put to him about the rolling circle), I think the rolling circle and the inner circle of the floats are intended to be the same circle.” He says, it is not expressed in the specification, whether d belonged to the rolling circle of the edges of the floats. If it belonged to the rolling circle, all he says is this, I do not think a workman would know whether the point d was the point belonging to the inner circle, or the rolling circle:—that is his judgment. If you have had an opportunity of looking at the figures as connected with the specification, I confess in my mind it does not appear a subject-matter of doubt that that d is the point that is formed by the surface of the common radial float with that inner circle, and this only gives you the point upon which to set off, on such occasion, to form your cycloid for the new form of floats, provided that may or may not be the case.

Now, gentlemen, the third and last is the main point in this case, whether this was an invention new at the time, or whether this improvement was new as to the public use and exercise thereof in England. The date that I have to call your attention to is the date of the patent, namely, the 18th of August, 1835; what you have to ask yourselves is, whether, on the evidence, that which Mr. Galloway has described in his specification was new at that time; or whether it was known and practised before in the realm of England. Undoubtedly, if it was, there is an end of the patent; upon that point the law is undoubtedly now understood to be this—a mere experiment, or a mere course of experiments, for the purpose of producing a result which is not brought to its completion, but begins and ends in uncertain experiments—that is not such an invention as should prevent another person, who is more successful, or pursues with greater industry the chain in the line that has been laid out for him by the preceding inventor, from availing himself of it, and having the benefit of it; therefore, the main point in this case is, whether all that is allowed to have been done by Mr. Field rested in experiment, and unsuccessful experiment not conducted to its full result, or whether it was a complete discovery of that which now forms the subject-matter of the patent. On that, the evidence of Mr. Carpmael and Mr. Cottam is, as you will suppose, only general, because they are called to negative that this was known before. Therefore,

As to the invention being in use before and at the time of the patent being granted.

Experiment not brought to completion, or conducted to a full result, will not vitiate the patent of a more successful person in the same line.

Lord Abinger,
C.B., to the jury.

used abroad, and not known in England; and if, therefore, any person was to import from America a machine, and have that machine used in England, and was to buy considerable quantities of them, no other person could take out a patent for that because it is a machine used abroad, and a man might have a patent taken out for it in England if he is the original importer of it. But however, on the case as it stands, I see no evidence before me that these locks were used in America. The question that was asked in cross-examination, was one which ought not to have been asked, namely, as to the information the party received when he received the order; all the instructions he had about the order were highly proper to be inquired into, but what was to be done with it afterwards, is a matter of fact collateral to it. But, however, the evidence is this—that a trader living in Birmingham, who is very much connected with the American trade, produced to Mr. Tilsley a model of a lock, and desired Mr. Tilsley, who was a factor, and also a manufacturer of hardware goods, to make him first six dozen of the locks, and at another time a dozen and a half, and Mr. Tilsley employed Walker to do it, and gave Walker the model. This was twenty-six years ago, I think, and six dozen of the locks were made at one time, and a dozen and a half at another time, and this gentleman, Mr. Freer, who traded with America, paid the Walkers for them. Here you have an article, manufactured by an English manufacturer, and sold, and, in my opinion, if it was sold even for the assumed purpose (of which there is no legal evidence), for the assumed purpose of being sent to America, I cannot but think that that would be a destruction of the novelty of the plaintiff's invention (*d*). And here let me be clearly understood; I do not mean to say, that if a man in America employs an agent to see if he can get an article manufactured in England by a particular model, and chooses to take out a patent for it himself, but not with a view of making it public at all, I do not mean to say that that man is to be considered as not entitled to the invention afterwards, because he employs a workman to assist him in it, or, that if he had failed entirely, that some other man might make the invention in England; but where a model is sent to a workman, who sells seven and a half dozen, and sells them for a certain price, I must say, I think the invention was used and publicly exercised. There is no secrecy in the manufacture of them, it is not shut up in the closet of the workman who makes them, but the man who makes them gives directions to another man; but he sells them for his own profit, and I think it would be the hardest thing in the world, if the Walkers were now to use that model,

The making of an article in this country, though for exportation, will vitiate a subsequent patent; unless under special circumstances.

(*d*) See on this point the case of *Morgan v. Scoussard*, ante 194, and post 540.

and make locks of the same description, if they were to A. D. 1841. be told to-day—"you cannot do that without violating Mr. Carpenter's patent, although you did it twenty-six years ago, and made a profit by your manufacture of it."

Having made these observations, I now come to the particular cases. The first introduced to you is the locks made for the Martello Towers. They are said to be made for the Martello Towers, but there is no proof of that. You have before you the man who manufactured them; he says, he was instructed to make the model of a lock, which he thought might be more suitable for the Martello Tower, and on his own invention he made a model. He says, that a part of that model still remains, which is the box receiving the lock-bolt, and that the other part has been destroyed, but that, from his memory, he has made exactly one of these locks which were made for the Martello Towers. He made eighty of them, and received money for them. Now, if they be any part of the invention which the plaintiff claims, then we know that is a public use of them for the reason I gave before—because they are used in public, and not in secret. It is not an invention kept in the closet, but there is a public use and exercise of it. But it is stated to you (and for aught I know, that statement may be perfectly correct), that these locks which were used for the Martello Towers are not exactly of the same description as the plaintiff's, for Mr. Kelly has observed to you, and the observation is very true in point of fact, that the combination the plaintiff claims is not a combination of a latch-bolt together with a lock-bolt in the same instrument, but of a separate latch-bolt and a separate lock-bolt; whereas in the Martello Tower lock the bolt and the latch were formed by the same piece of iron; so that the one end of it is used as a latch, and then, when that was not required to be used, it has a bolt, and, by means of a key which is turned, the same piece of iron slides further and makes the bolt. That is the case in almost every bed room or drawing room door lock which you see in London, or any where in the country, because most of them have a latch, by which you may shut the door without the use of the key; but if you use the key the latch is turned into a bolt; and I think the learned counsel is right in saying, that certainly is not the combination which the plaintiff claims. But it is this—the effect of that is to show, that the mode of receiving the bolt, the mode of drawing it out of the lock, and the mode of receiving it into the box by an uplifting latch, by an inclined plane, and by bearing off the edges of the bolt, that that is clearly not original. The plaintiff's patent, therefore, if good at all, cannot consist in the adoption of that expedient, but in the combination of it with the other, namely, with the bolt.

Now we come to the second case, Mr. Chubb's patent. You

Lord Abinger,
C.B., to the jury.

An improved
combination
the subject-
matter of letters
patent.

will observe, that if the plaintiff had thought fit in his specification to say, "I take out my patent for an improved method of combining the bolt and the latch in a more skilful form than has hitherto been adopted, which will remove from it the intricacy of the machinery, but which effects the same combination as before;" he might have had, for aught I know, a very good patent (e); but as his patent is for the combination of the two, then look at Mr. Farey's evidence, and look at Mr. Chubb's lock, which combines them; it does not combine them exactly in the same way, undoubtedly, but the plaintiff has not claimed the particular way, for then he makes the brass plate a part of it. But he says, he does not mean to say that, but that he claims the combination generally. Mr. Chubb's is undoubtedly the combination of the latch and the bolt, with a more complicated machinery undoubtedly, because his latch consists of four parts, and the plaintiff's bolt of one; and it is very true that the latch and the bolt must be used together, if you use them both; that is to say, if you want to lock the door, you must latch it also. There is no great prejudice in that undoubtedly; but such is the fact. It is true that the plaintiff's you may use separately; but the patent is not for the separate use of either, but the combination. You will consider, whether you think Mr. Chubb's lock, as Mr. Farey explains it, is a combination of the bolt and latch. Mr. Farey's evidence is this; he says, "he has been in practice many years, and has been acquainted with machinery of this kind for thirty years; with all these sorts of subjects." He says, "in a work called the 'Repertory of Arts and Sciences,' published a great many years ago, before this patent" (and he produced a copy of that work, which he then had); he says, "in that publication is contained a statement of an invention made by Mr. Chubb, and that he himself prepared the drawings in order to Mr. Chubb taking out a patent." There is no evidence that Mr. Chubb took out a patent; that is not material to the circumstance. Mr. Chubb, in the publication, gives figures from which the machine might be made; a lock was put into his hand, and he says he has one of these locks himself, which was given to him by Mr. Chubb. He himself drew the figures from that lock. He says, "this lock, which I hold in my hand, corresponds with a part of one of the inventions stated in this publication. There is a description of two locks—one being a latch-lock, and the other the same, with the addition of the sliding bolt. Two figures are described—one is a separate latch-lock, and the other a latch-lock combined with a sliding bolt moved by a key. This which I have in my hand is a combination of both the latch and the bolt, and is one of

(c) See the case of Minter's patent, *ante*, 140 and 142.

inventions described in this publication; there is no difference. A. D. 1841.

as in the printed book—the staple in the plaintiff's model and that in Mr. Chubb's lock;" that is the lock already spoken of.

"The latch consists of four distinct latches, each of which has the under edge rounded, and the combination of the four together in action forms an inclined plane. The plan of the sliding bolt is different; but the principle is the same. The sliding bolt in Mr. Chubb's being broader is above the latches, and also below them." That is true, it comes out broader and occupies the space of the latches; "and also below the latches;" he says, "the principle is the same, the combination of the sliding bolt with the latch; that latch was not new in 1830, but is contained in this publication; there is in the staple an inclined plane" (this is in his cross-examination)—"there is in the staple an inclined plane to raise the latch, and a place or recess for it to fall into when the door is shut, which is exactly the same as the plaintiff's." Now he says (and he is a man of sense), he considers the principle to be the same; there is no doubt there are more latches in the one than in the other; but as the plaintiff in his patent has not distinguished it, that means to take it out in contradistinction to the more complicated machinery—but it is simply the combination of a latch with a bolt—and you have to say, whether that is not the combination of a latch with a bolt, and something more—because his patent is equally bad, if all that it claims has been found in another patent and another invention, combined with something else, unless he makes a distinction, and shows that the invention for which he claims the patent has novelty to support it.

The next case is the lock of Mr. Davies. You have had that in your hands, and I own, according to my inspection of it, it appears to me, though more rough in its form, to be on exactly the same principle as the plaintiff's. It consists of a sliding bolt, and it consists of an uplifting latch, and they are both in the same frame; they are both received into the same receptacle, with, I think, this difference—that part of the receiver which takes the bolt rises above the enclosed part of the receiver, and so it is a little outside of it; but it is raised to the same external surface. Now, Mr. Kelly argues on this, and says, this cannot be considered as any attack on the novelty of the plaintiff's patent, because it was not in public use and exercise. Gentlemen, in my opinion, if you believe the witness that the lock was on Mr. Davies's gate sixteen years ago, and that he saw it every day of his life, and repaired it twelve years ago, and has brought it here and described it to you now, it seems to me, if you are of that opinion, that that was a public use of the invention. The application and the practical utility of the invention are the same, and that before the eyes of the public comes within the meaning

The use of a lock in such a situation that the public might see it, is a public use and exercise of the invention.

of the words, as I understand them, of this patent, and it is only used in contradistinction of a public use and exercise, to which the public has no access. If you believe, therefore, these witnesses (and you saw the lock), and you agree with me that it is the same in principle as the plaintiff's lock, I own it does appear to me that there is sufficient ground to justify you in finding, that the invention is not new.

The manufacture and sale, without secrecy, by a workman of seven dozen and a half of locks, according to a model which is retained, is a public use and exercise of the invention.

Now we come to the locks made by the two Walkers; but if I understood the learned counsel rightly, in his very ingenious and elaborate reply, he admits that those are similar in principle, and the only ground that he takes on that is, that they were not in public use and exercise. It appears to me that they are similar in principle, for they are exactly the shooting bolt and the lifting latch, and you may use them by a separate application, and with this addition; there are two separate applications—the one which the witness called a bagpipe latch, which is pressing down at the top—and the other, a horizontal shaft to press it down, which might act on either side with pressure. It opened the latch, and the key opened the lock. It seems to me to be exactly the same as the plaintiff's. Then we come round to the question which I stated before, that the manufacture of a dozen and a half in the month of May, and six dozen in February before, by a British workman, who still retains the model, is a public use and exercise of it; he makes no secret of it, and they are sold by him, and he is paid for them. I think it would be a very hard thing to say, that he could not use the same invention now, because the plaintiff has taken out a patent for it. However, it is for you to consider, whether all these different locks which have been produced before you, combining the latch with the bolt, are the same in combination, the same in principle; and if you are of opinion (not that they were generally adopted by the public, and used by the public, for that in my opinion is a perfect fallacy), that the use of them is public, and the exercise of the invention was public, and not kept secret, so that the public might have no benefit from it, then, I think, that part of the issue you ought to find for the defendant.

Verdict for the defendant.

CARPENTER v. SMITH.

*In the Exchequer
Motion for a
new trial.
H. T., 1842.*

Cor. Lord Abinger, C.B.: Alderson, B.; Gurney, B.

[9 M. & W. 300.]

The "public use and exercise" of an in-

Case for the infringement of a patent for certain improvements "in locks and other securities, applicable to doors and

other purposes." Pleas—first, not guilty; secondly, that the plaintiff was not the true and first inventor of the said improvements; thirdly, that the said improvements were not a new invention as to the public use and exercise thereof. On which issues were joined.

At the trial before Lord Abinger, C.B., at the Middlesex sittings, after Michaelmas Term, the main question between the parties was, whether the plaintiff's invention, the principle of which was a combination of the bolt and latch of the lock within one frame, was or was not a novelty. A witness called by the defendant proved, that in the year 1816, he received from a house in the United States a pattern of a lock, similar in principle to the plaintiff's, and that he procured several dozens to be made at Birmingham, according to the pattern, and sent them to America. The defendant also produced a lock similar to that of the plaintiff's, which he proved to have been used for sixteen years on a gate, adjoining a public road belonging to a clergyman of the name of Davies, residing near Birmingham. For the plaintiff it was contended, that inasmuch as there was no proof that the locks in question had been brought into public general use in this country, the plaintiff's might nevertheless be considered a new invention. The Lord Chief Baron in summing up, stated that an invention could not be considered new, which had been in public use before; that the word "public" was not equivalent to "general," but was distinguished from secret use: and he expressed his opinion, that the circumstance of a lock similar in principle to the plaintiff's being on Mr. Davies's gate for so long a period, and the manufacture of several dozens by an English artist for money, without secrecy, amounted to a public use of those locks. The jury having found a verdict for the defendant—

Kelly now moved for a new trial, on the ground of misdirection. The rule of law on this subject is not so narrow as it was stated to be by the learned judge. The mere manufacture or use of an invention by an individual, who may himself have discovered it, even in such a manner that a particular portion of the public in his particular locality may have access to it, but without its being sold or brought into the market, does not constitute such a public use or exercise of that invention, as to prevent another person, who does not copy it, from afterwards obtaining a patent for the same principle: *Morgan v. Seaward* (f). [*Alderson*, B.: How then do you get over the case of the invention for which a patent was avoided, because it had been previously published in a book (g)?—the principle being, that it

(f) *Ants* 194; 2 M. & W. 544.

(g) The case referred to was understood to be Dr. Brewster's Kaleidoscope, but I have not been

able to obtain any account of the proceedings. If an invention be contained in a book, a subsequent though independent inventor is not, in point of

That which has been given to the public once cannot be again appropriated by any one.

could be appropriated by any body, because it had already been given to every body.] All that is required by the statute 21 Jac. 1, c. 3, s. 6, is, that the grant shall be made "to the first and true inventors of such manufactures, which others at the time of the making of the grant did not use." The statute intended to prevent loss to the inventor of a useful instrument, who brings it into public use and exercise, by reason of the making of a former similar invention not brought into practice, or the use whereof may be said to have ceased. [Lord Abinger, C. B.: By how many of the public would you allow it to be known, and what are the public? How vague a rule you would establish for each case! Would you say that the use by a particular club would be a use by the public; or suppose the inventor of a machine gives away a hundred among his friends, and they use it?] In *Lewis v. Marling* (h), a model and a specification of a machine similar to that for which the patent was granted had been brought over from America, and shown to several persons; but it was held, that as no machine had been manufactured and brought into use, and as the patentee had not seen that model or specification, he might still be considered the inventor. So in *Jones v. Pearce* (i), where it was proved for the defendant that a Mr. Strutt had constructed wheels similar in principle to that of the plaintiff's. Patten, J., in summing up to the jury, said that if it appeared that the wheel "was used openly in public, so that every body might see it, and the plaintiff had continued to use the same thing up to the time of taking out the patent, undoubtedly that would be a ground to say that the plaintiff's invention was not new." [Alderson, B.: That is the very same principle of law as was laid down by my lord in the present case; the only restriction I should put upon it would be, that it need not appear that the machine was used up to the time of taking out the patent.] People would not become acquainted with the principle of this invention by passing along the road, past the gate, by thousands; and yet thereby a person *bona fide* discovering it for himself, and bringing it into public use in another part of England, is to be precluded from taking out a patent. Such a construction of the law is surely too large.

ALDERSON, B.: I think there ought to be no rule in this case. I have not the least doubt that that is the right construction of the law which my lord has put upon it. Public use means a

fact, the true and first inventor. Then arises the question, how far, under the peculiar words of the statute, letters patent granted to such subsequent and independent inventor, who introduces the invention, that is, the working and making of the manufacture under the protection of letters patent, may be valid, notwithstanding such prior

publication in a book without any use of the invention. Cases of this kind would appear to be within the meaning of the 5 & 6 W. 4, c. 83, s. 2, and to require confirmation. See *Law & Practice*. IND. Tit. Confirmation.

(h) *Ante* 496; 10 B. & C. 22.

(i) *Ante* 121.

public, so as to come to the knowledge of others than the inventor, as contradistinguished from the use of it by himself in his chamber. How then can it be contended that the lock has been used in public by Mr. Davies for so many years as a new invention? If the plaintiff's doctrine is correct, it follows, that if Mr. Davies were to change his lock to another gate he would be liable to an action for an infringement of the plaintiff's patent (*k*). The case of *Lewis v. Marling* went to a very extreme point of the law.

MR. BNEY, B., concurred.

MR. ABINGER, C. B.: I agree in thinking that there is no ground for disturbing the verdict. I was counsel in the cases of *Lewis v. Marling* and *Jones v. Pearce*, and I recollect that those cases proceeded on the ground of the former machines being in truth, mere experiments, which altogether failed. The use and exercise of an invention, means a use and exercise in public, not by the public. There are some expressions in former cases which were referred to on the trial, which rather militate towards Mr. Kelly's argument, and I therefore thought it well to lay down the rule of law in the broad terms I did. I have never entertained the same opinion on the subject.

Rule refused.

The learned judge does not appear to have adverted to the ambiguity which the terms "invention" and "the use of or using an invention" involve. If the daily use or the removal of a machine, or the using of an invention, within the meaning of the prohibitory clause of the letters patent, is to be an authority in writing, under the seal of the grantee of the letters patent, his executors, administrators, or assigns. However, it is respectfully submitted, is a true construction to put on the words of the statute, which are, in the words of the statute, "for the working or making of a certain manner of new manufacture, that is, for the bringing of the requisite arts by which such manufacture is to be produced; the letters patent the grantee, his executors, administrators, assigns, and to no others, to make, use, exercise, vend the invention, and prohibit all other persons from making, using, or putting in practice the invention, without a license in writing, under the seal." Can it be contended that the employment of the ordinary purposes of life, of an article under the patent, is such a using of the invention? The omission of the word "vend" in the prohibitory part is remarkable. The vending, as defined by *Coleridge, J.*, *ante* 138, the selling, is frequently restrained by a court of equity, because it raises a presumption of the using and exercising the invention, and if there is a breach of the patent may well be restrained therefrom. See the lock in question, in the principal

case, to have been brought by some unknown person from abroad, and to have been put and continued in use on the gate, no one knowing its internal construction. Suppose it to be a lock of great ingenuity, and that such a one had never been made in England. On the authority of the preceding case, the fact of that lock having been so used, in ignorance of its construction, would vitiate a subsequent patent granted to a party, who had by great labour and cost invented and perfected such a lock, and introduced the working and making of such locks as a new trade into the realm. But instead of a lock, or any combination of mechanical elements, suppose a chemical compound, or a paint, or a medicine, or a dye, to be well known abroad, and that such a compound, paint, medicine, or dye, had been imported into this country for many years, that the secret of their manufacture was unknown, but a matter of great importance to the trade and commerce of the country to be discovered, and that this is at last found out by some ingenious man, who publishes the art under the protection of letters patent. Would the previous importation and use of the articles so made by an unknown art, vitiate such subsequent letters patent? On the authority of the early cases such patents would be valid, but the importation could not be prohibited, otherwise people would be restrained in that they were doing before. See the early cases, *ante* 6, and the small patents, *ante* 9-13. The introduction of the new trade is the principle recognised in the earliest cases. *Ante* 6.

JONES & ANOTHER v. BERGER.

H. T., 1843. Cor. Sir N. C. Tindal, C.J.; Erskine, J.; Maule, J.; Cresswell, J.

The notice of objections must point out the defence with greater particularity than the record.

Books intended to be relied on should be distinctly described. The court will see that the objection is stated with reasonable particularity, according to the circumstances of the case.

Notice of objections.

This was an action for an infringement of a patent, granted 30th April, 1840, to the plaintiff *Jones* for improvements in treating or operating on farinaceous matter, to obtain starch and other products, and in manufacturing starch. The declaration was in the usual form, and the pleas were—1. Not guilty. 2. That the plaintiff *Jones* was not the true and first inventor. 3. That the plaintiff did not particularly describe and ascertain the nature of the invention, and in what manner the same was to be performed, in pursuance of the proviso in the letters patent. 4. That the said invention was in use by others before the date of the patent.

The notice of objections delivered with the pleas was as follows:—1. That the said *Jones* was not the true and first inventor of the said invention, the same having been published in the specification of certain letters patent, granted to Thomas Wickham, and which specification was enrolled on or about the 10th day of March, A. D. 1824, and also in the specification of certain other letters patent granted to William Prince, and which specification was enrolled, on or about the 2d day of May, 1768; and also by other persons in other books and writings, before the date of the said letters patent of *Jones*. 2. That the said specification does not sufficiently distinguish between what is old and what is new; that the processes therein described are not beneficially applicable to obtaining starch from all farinaceous matters; that *Jones* did not state in the said specification the most beneficial method with which he was then acquainted of practising his said invention; that the proportions and directions given are not such as to enable an ordinary workman to make starch of a quality suitable for the general purposes of commerce; that the said specification is in other respects uncertain, insufficient, and calculated to mislead. 3. That the said invention was in use by many persons before and at the time of the date of the said letters patent, and particularly that the use of rice as and for starch, and the use of rice flour as and for starch, and the preparing rice flour to be used as starch, and the preparation of starch from whole rice and from rice flour, were known and practised by persons engaged in the manufacture and finishing of lace and similar fabrics at Nottingham and elsewhere, before and at the time of the grant of the said patent to *Jones*.

Sir T. *Wilde* having obtained a rule calling on the defendant to show cause why further and better particulars should not be delivered, cause was shown by *Argument on the rule.*

Channel, Sergt. This case differs materially from those in which the court has had to consider, whether it would compel a party to give the names of persons who may have used the invention, or whether, when a defendant objects to some part of the improvement as not new, he will be required to state what part is not new. The first objection is addressed to the principle, not to the use of the invention; that the principle is not new, having already been the subject of two patents and contained in published works. Two specifications are pointed out, and it could never be intended that a defendant should give an account of all the cyclopædias in which the subject is mentioned. [Sir N. C. *Tindal*, C. J.: You may have kept your best evidence behind, and then start on them some article in an encyclopædia.] The objection is, that the principle is perfectly notorious; that the obtaining starch from farinaceous matters was well known to the chemical world. Suppose a person were to claim a patent for making rum from sugar or molasses, surely any one would be entitled to say that is not a new principle, it is disclosed by all the scientific publications of the day. The plaintiff's witnesses, who come to support a patent like this, ought to be in a situation to know whether it has been discussed in the leading scientific treatises of the day; the use of a particular substance to a certain extent, and so far as the plaintiff may have considered secretly, and yet large enough to invalidate the patent, seems to stand on a different ground.

The objections to the specification are specific, and the defendant is willing to strike out the general words at the end.

The last objection specifies the purpose for which, and the place at which, the invention is said to have been in use; this is different from the cases in which the question has been, whether names should be given, and is sufficient, looking at the nature of the invention. The case of *Bulnois v. Mackenzie* (a) decided that it would be going too far to require the names and addresses to be given. The case of *Fisher v. Dewick* (b) does not apply to the names and addresses of the parties. [*Bompas, Sergt.*: The report of that case does not go to the full extent; the Lord Chief Justice in all the pleas struck out the words "and other persons" (c).] If the objection had been simply, that the invention was used by certain persons, without giving any information as to their particular trade, it would have been sufficient upon the authority of the cases (d).

(a) *Ante* 260.

(b) *Ante* 266.

(c) See *ante* 266, n. a, and the further particulars of this case, *post* 551.

(d) The learned counsel referred to the note, *ante* 268.

*Argument on
the rule.*

Bompas, Sergt., in support of the rule. These objections are insufficient, in respect of certain words which tend to throw them open, and make them no notice whatever. The difficulty in respect of the words, "other books and writings," at the end of the first objection, is this:—A witness comes into the box to give evidence. A book is put into his hands, which he has never seen before, and he is asked to give his opinion as to whether what is there described is within the patent. The witness cannot give a satisfactory answer on a long statement at once; he is taken by surprise. It is essential in applying the testimony of scientific men, that the witnesses should have had an opportunity beforehand of seeing such statements. The evidence to be given is not like the knowledge of a fact which he is bound to know; it is an opinion on a long scientific statement. It is impossible for satisfactory and consistent evidence to be given in such cases without an opportunity of prior examination. And as regards written published accounts, the defendant cannot be prejudiced, since he may have the notice amended within any time of the trial that a judge may think reasonable. This is not a case in which there can be any tampering with witnesses or evidence; each party has a fair opportunity of examining it, and forming his opinion upon it. If this be not done, the witnesses may be taken by surprise, and the effect of the trial thereby rendered abortive. The peculiar nature of patent cases requires that the plaintiff should have notice of all written documents or publications intended to be adduced in evidence. In the case of *Fisher v. Dewick*, the Lord Chief Justice struck out the words "divers other persons," the notice having mentioned certain persons, remarking at the same time, "if the defendant discovers other persons not named in these objections, he has the power of applying to a judge to add them," and this case is precisely the same as that.

As to the objection that the plaintiff Jones has not described the best method with which he was acquainted, we have no idea what is meant. [*Sir N. C. Tindal, C. J.*: You must know, if you at one time thought of putting such a method into your specification. It lies within your own knowledge better than the defendant's. The defendant cannot prove it unless something of that sort has taken place.] [*Erskine, J.*: Suppose the defendant to prove that you have produced an article which clearly could not be produced by the mode described in the specification, by what other mode the witness cannot say, would not that be evidence to show you had not described the best mode with which you were acquainted?]

The fourth objection is nothing more than the plea, that it was used publicly. [*Maule, J.*: It goes further. Persons of a particular trade at Nottingham and elsewhere.] That is not at all within what the court decided in *Fisher v. Dewick*. The in-

vention was improved machinery in making lace; it was quite H. T., 1843. clear that could only be used by persons making lace. [*Maule, J.*: But the making of machinery is comparatively in few hands; it is not at all like a person exercising some handicraft, or producing some article in daily use. But when you say there is a patent for a steam engine, that is a different thing. There would be no difficulty in finding out all the steam engine makers.] There the case was limited. The objection was, that it was in use by certain persons who must necessarily be lace makers. [*Maule, J.*: No; makers of lace machinery.] [*Tindal, C.J.*: Is there any objection to insert the word generally?] Each party must then produce all the lace manufacturers to prove that it was generally or not generally used. There has never been a case in which such language was permitted; in every case some names have been given, and the only question has been, whether the words "other persons" should be retained, or some names given. It is of great importance that we should know some, because then we might trace out others. [*Maule, J.*: It may be that the defendant has no clue to find it out. Suppose his evidence to be that there is a great deal of lace in the market; you cannot tell who made it, but you may be able to tell that starch has been used in the manufacture.] If it had been said that lace had been sold in the market by certain persons, the case would have been different, but no clue whatever is given. In *Fisher v. Dewick*, the lace could be identified. There was a particular spot made in the lace, and by examination it could be ascertained whether the lace was made by that machinery. If the word "generally" were inserted, that would bind the defendant to show a general use, and they would not succeed by showing it used by one or two. [*Erskine, J.*: The statement is—"used by many persons."] Evidence of one person could be offered under such circumstances. [*Erskine, J.*: I should have very considerable doubt of that.] [*Channel, Sergt.*: I believe the process was generally known, but not generally used, because the trade knew a better.] [*Erskine, J.*: The objection is not to be made, unless the objection given be proved. If the notice of objection is, that it was used by many persons, and you only prove that it was used by one, you do not prove your objection.] In *Fisher v. Dewick*, the objection was, that previous to the patent, means were known and publicly used, whereby ornamental spots were formed, &c., and by divers other persons, in England and elsewhere. The Lord Chief Justice struck out the words "divers other persons," and yet that related to a much more narrow view than this, for the persons using bobbin net lace and making the spots extends only to a branch of the lace manufacture. [*Tindal, C.J.*: That was a patent for some improvements in machinery, not for making lace.] The statute

contemplates a *bond fide* notice; the notice in this case practically gives no further information than the pleas, which state the invention to have been in use before the patent.

Judgment.

The notice of objections intended to point out the defence with greater degree of particularity than the record.

TINDAL, C.J.: The new rules were made before the statute (e); therefore, we are not at liberty to say that the legislature did not at the time contemplate the existence of those rules, or were not aware that, in an action for the infringement of letters patent, the plea of the general issue could no longer be pleaded, but that the different objections must be raised on the record. And that being so, we think we are bound to suppose, that as the legislature directed a notice of the objections to be given with the plea, that they mean something more than the plea itself—something more particular and definite, calling the attention of the plaintiff with a greater degree of particularity (what degree is a different question) than that on the record. The question, when it occurs before us, is, whether the direction of the statute has been virtually and substantially complied with.

The defendant should specify books intended to be relied on, and cannot be prejudiced by so doing.

On the present occasion, in the first objection, after the defendant has stated that the patentee was not the true and first inventor, he goes on to state his reasons for it; that there were two different specifications of former and ancient letters patent, in which he proceeds to say, the secret, now the subject-matter of this patent, had been discovered and disclosed to the public; then he adds these words (and these alone are objected to)—“and also by other persons, in other books and writings, before the date of the said letters patent in the declaration mentioned.” The only question is, whether it is a more fair compliance with the statute, that he should disclose the name of those authors, or of the publications on which he intends to rely. Perhaps on the whole, it is a fairer and more substantial compliance with the act, if the defendant does specify in his notice what are the books and writings on which he intends to rely. It comes more clearly within the analogy of those cases that have been referred to; it subjects the defendant to no real hardship, for if he discovers other books or writings before the trial comes on, he can take out a summons before a judge, and can add these, and will be at liberty to give them in evidence. It seems on the whole that it will be a means of diminishing the expenses of the trial, of directing the attention of witnesses who will be called to more specific points, and therefore would be a more complete compliance with the object and intention of the act.

The second objection is, that the specification does not sufficiently distinguish between what is old and what is new. The ground of objection to this form of notice has been given up;

(e) The new rules came into operation Easter Term, 1834; the statute (5 & 6 W. 4, c. 83) received the royal assent Sept. 10, 1835.

that lies on the surface of the case; the specification is enrolled, H. T., 1843. and must be within the knowledge of the party now objecting to the notice of the objections (*f*).

The third is, "that the said invention was in use by many persons before and at the time of the date of the said letters patent, and particularly that the use of rice as and for starch, and the preparing rice flour to be used as starch, and the preparation of starch from whole rice, and from rice flour, were known and practised by persons engaged in the manufacture and finishing of lace and similar fabrics, and in the clear starching and otherwise dealing with lace and similar fabrics at Nottingham and elsewhere." Therefore it appears to me, that if the words "and elsewhere" are struck out, substituting the places afterwards, if new evidence should arise within the defendant's power to produce at the trial, that there is no objection to this form of stating the objections in the notice. For I think this case is distinguishable from that of *Fisher v. Dewick*, in which the patent was for alterations and improvements in the manufacture of the machinery by which lace was made. And it is a very possible thing that the use of particular wheels or cranks, or mode of making machines, may have been known and used in the particular manufacture, or in houses, but only known by those persons who were so using them. And therefore, unless the names of those persons were given, nothing is disclosed at all. At all events, if you are at liberty to add the names of persons and of others, you may only mislead the party. But this is a patent for the making of starch generally; and this notice of objections does limit the inquiry to a particular species and class of persons, who are using it in a particular trade. The defendant says, I mean to object you shall not have your patent for making starch generally, because the invention was in use among persons of this particular class, namely, lace manufacturers and clear starchers in the town of Nottingham, and by many of them. It is quite as open for the plaintiff to make inquiry in Nottingham, among persons of that description, as for the defendant to do it. I think he is not misled, but the field is open to him; the words "and elsewhere," would open it too much against the plaintiff, and, therefore, those words should be struck out.

The words 'and elsewhere' to be omitted, the places to be specified should fresh evidence arise.

ERSKINE, J.: I am of the same opinion, that the legislature must be taken to have intended that something more particular than the form of pleading, as then established by the rules of the judges merely, should be included in the objections given. What the court has to say is, whether the objection is stated with reasonable particularity. It appears to me that the limita-

(*f*) The general words at the end of the second objection had been abandoned during the argument, and the court intimated that the objection so amended was sufficient.

Judgment.

tion my lord has just stated as to the objection made on the present occasion would give sufficient intimation to the party of the nature of the objections, so as to prevent his being misled by them, which is all the court are called on to do.

MAULE, J.: I also think that, with respect to the notice of objections and the naming the persons, the act of parliament requires some statement more precise and narrowing the objections intended to be relied on than that required by the rules of pleading, which must be taken to have been known by the legislature at the time the act passed.

The case of *Fisher v. Dewick*, was for an improvement in machinery for the manufacture of lace, and the reason why the objection in effect was held not to be sufficient there, was, because the machinery for making lace, that is to say, the invention for which the patent was obtained, was itself in use by certain persons named and by other persons. That is no restriction or particularization of the simple objection or statement in the plea, that the alleged invention was in use before the patent. So that there the objection was quite as wide as the plea. And in order to narrow it, the way in which it was suggested it should be narrowed, was by naming the persons who had so used that alleged invention. The objection here is not that certain persons and certain other persons before the patent had used the same process for operating on farinaceous matter in obtaining starch and improving the making of starch generally, but it narrows it extremely. The objection excludes all publicity except the public use of a particular kind of starch, namely rice starch, and for a particular purpose. I think that is clearly much narrower than the objection of the public use of the patent, and it seems to me to be a reasonable particularization if it points out to the party who is to sustain the patent, sufficiently the nature of the inquiry that the objector intends to rely on as to the patent. It seems to me not unreasonable to say "at Nottingham and elsewhere;" for the nature of the fabric being specified, and the particular kind of starch also specified, it might well be, as my brother *Bompas* has argued forcibly, that there might be fabrics of that kind in the market, which could be shown to have been made of that kind of starch, though you may not be able to trace where they came from. I don't think it worth while to differ from my Lord Chief Justice in that respect; I dare say it will make no difference to the parties if the words "and elsewhere" are struck out.

The pleas may be narrowed by naming the persons, or limiting the nature of the inquiry. The words 'and elsewhere' not unreasonable.

Prior publication in a book or specification an objection, and not simply evidence of an objection.

As to the naming of the book, I think it is an objection to the patent, and not evidence simply of an objection, that there has been a previous patent and a specification enrolled, and therefore published being enrolled, containing the invention. In the same way, I think it is an objection to a patent that it has been published in such a book; and in order to state the objection within the meaning of the act of parliament, applying

enable discretion to it, I think a party may be fairly called H. T., 1843. state, if he can, the names or some description, whether books or publications, in which he says that has been used.

SWELL, J.: It would be difficult indeed to lay down a rule applicable to such a case as this. Had this act of assent been passed before the new rules of pleading were made, I should be disposed to think that the fifth section was intended to give that protection to the patentees they now have under the new rules. But as the statute passed after the new rules, I cannot but suppose the legislature was aware of them, and that something more was intended by the section than that it should have the benefit of a special plea.

On the first part of the case, taking the objection to be that the subject-matter of this patent—the invention—had been made public before by certain publications, I think we are authorised in calling on the defendant to give a reasonable degree of particularity to that objection, by giving some description of the publication to which he refers.

As to the other parts of the case, I concur in the observations that have been already given.

Rule accordingly (*f*).

The above decision recognises and con-
firms the doctrine of the preceding cases, that the
objections must afford some more specific
information as to the nature of the defence than
is found on the record, subject of course to the
directions pointed out by the Court of Exchequer,
and that an objection should be so fully and com-
panded on the record, as to render a
draft of the plea sufficient. *Ante* 370.
The directions adverted to between the above
cases of *Fisher v. Dewick* are of considera-
ble importance, and would appear to rest on the
distinction between the use by the public as the
consumers or employers of an article, and the use
as the manufacturers or producers of
it. The exclusive privileges granted
by a patent are of the latter class, that is,
of the right of making of the new manufacture.

Fisher v. Dewick.

The invention in this case was for improved lace,
and the invention consisted in adding
new parts to the existing machinery, for the
forming spots. In the report of this
case (266, n. d.) the result only of the appli-
cation of an amended notice of objections is
given in the delivery of the amended particu-
lars of that application to the court,
and for further amended particulars was
made, and heard before the Lord Chief
Justice, at chambers. His lordship, after
having considered, made the following re-
marks. The words "that the
defendant is not in possession of the said alleged
invention before or at the date of the letters

patent," were struck out of the objection, that the
plaintiff was not the true and first inventor of the
whole, or of any part of the said improvements.

The objection stated that "a particular improve-
ment had been used by A. B., &c. (giving names
and addresses), and divers other people within
this kingdom, and elsewhere;" his lordship struck
out the words "and divers other people," adding,
that "if the defendant discover other persons not
named in the objections, he has the power of ap-
plying to a judge to add such persons."

An objection stated, that there were several
machines, "such as (naming them) and others,
to which the said improvements are inapplicable;"
his lordship struck out the words "and others."

On the objection, "that the invention for which
the said letters patent were granted, is more ex-
tensive than, and did not correspond with, the
invention described in the specification," his lord-
ship remarked, "I think the attention of the
plaintiff should be called to the particular part or
parts." His lordship made the same remark on
an objection of discrepancy between the drawings
and specification.

On the objection, that "before the patent, means
were known and publicly used, whereby orna-
mental spots might be formed in bobbin-net lace,
whilst the same was in progress of fabrication by
machinery, and that such spot was formed by
A. B., &c. (names and addresses), and by divers
other people in England and elsewhere," his
lordship struck out the latter words.

Heath v. Unwin.

In this case the notice of objections stated that

the specification did not sufficiently describe the nature of the invention, and the manner in which it was to be performed; secondly, that the invention was not new, having been wholly or in part used and made public before the obtaining of the letters patent; thirdly, that the invention did not produce the effect stated, nor was such effect produced by the plaintiff in the manner stated. A rule was obtained for better particulars of the objections to be relied on.

Lord Abinger, C. B.: "Mr. Ogle has brought one of the objections, namely the second, within the case in the Court of Common Pleas (*ante* 264), which decides that it is not sufficient to say that an alleged invention was wholly or in part used and made public before the obtaining of the letters patent; and so far, therefore, the defendant must amend. But I see no objection to any of the rest; and with respect to the first in particular, surely it is enough for the defendant to say to the plaintiff, you do not set forth your invention properly. To go beyond this, would be to require him to argue his case in the objections delivered."

Practice in Scotland.

The fifth section of the statute (5 & 6 W. 4, c. 83) does not apply to Scotland, but the same object is attained on the system of pleading in that country by the closed record on a revised condescendence and answer. The observations made in the recent case of Neilson's patent with reference to the question, as to what was open to a pursuer on the record, will serve to illustrate the cases which occur in this country under the statute. Evidence of user at a place not mentioned on the record, but which was specified in a note of objections, delivered as under the statute, was rejected by Lord Justice Clerk, at the trial. On appeal against that decision,

Lord MENZIES said, "I have great hesitation in thinking that the fifth section of the act applies to Scotland at all; I think, therefore, that we must look to the closed record, the foundation of these issues, and to the averments on which the parties agreed to close, and of course to foreclose themselves as to all other averments in fact; and we must consider, whether the defender made such statements as to entitle him to go into this line of inquiry. Now, I say, that the pursuer would have been misled by the record, for that he never could have expected any proof against his invention from the examination of an anchor-smith using a common smith's forge in the town of Irvine, or any similar evidence. The record led him to expect quite a different state of facts to be proved against his being the inventor of this improvement. The defender specifies Chapman's invention. He next states the prior use of Neilson's invention, both in England and Scotland, particularly at two iron works in Yorkshire, and one in Staffordshire, mentioning them by name, referring also to the patent of Botfield and Mr. Stirling, and the mode invented by Mr. Jeffries. Now, I hold it was quite incompetent, after exhausting the line of evidence here pointed out, or using as much of it as the defender thought available to him, to resort to an inquiry as to the use of heated air in a smith's forge at Irvine, about

six years before the date of this patent, which does not seem to have been followed in other smiths' forges; nor described in any of the philosophical journals of the day as an important improvement. The record assuredly gave no information which called upon the pursuer to expect such a line of inquiry and evidence, or would have enabled him to meet it. If this line of inquiry had been allowed, and the verdict had been against him on the ground of prior use, I think he must have been allowed a new trial on the ground of surprise, and therefore that this evidence was properly refused.

"I perceive that in a recent English case, where the note of objections had specified the prior use by certain persons named, and by others, the judge at chambers made the party strike out this general expression, and confine the proof to the persons named. In the case of Russell with us it was specified on the record, that there was prior use of making gas pipes by various persons, both in Glasgow and Edinburgh; this generality was not objected to, nor brought before the court, for the practice was recent and in the hands of few. Those who manufactured them were well known, and no further particularizing was required by the party. This is no proof that greater explicitness would not have been required, if it had been necessary and insisted on; it is only proof that in that case the party did not wish for further notice in order to defend himself. Here I think it was different, more especially when the reference to such works as could have used the hot blast in furnaces were so precise and numerous."

Lord MONCRIEFF: "It is very clear to me that our statutes concerning the effect of the closed record, which are neither repealed, nor in any manner touched, by Lord Brougham's act, must be in full force, and must rule the question; and that that record cannot be supplemented by any note of objections subsequently lodged. Then it appears to me, that if the party meant to try to prove any special case of prior use, it should have been specifically stated. They did so in various instances, and the consequence was, that they were disproved in the trial by persons who had made themselves acquainted with the works referred to.

"The case of the gas tubes rather tends to illustrate this point. The averment was definite, and limited to previous use in Edinburgh and Glasgow; and it was so put in the issues. The making of such articles at all was of very recent practice; and all the persons employed in it in these places were well known. But if you make a general averment about common forges, with reference to numerous places or districts all over the kingdom, it is impossible for any one to tell, or to discover, what the particular thing is which you propose to prove under it.

"An averment of a general custom would be a different case. But even for that the record here would not be sufficient." *The Houskill Company v. Neilson & Others.*

The above decision of the second division of the Court of Session was affirmed on appeal to the House of Lords. *Post.*

CONFIRMATION OF LETTERS PATENT.

Cor. Lord Lyndhurst ; Lord Wynford ; Hon. T. Erskine ; *In the Privy Council.*
Sir H. Jenner.

This was an application under the second section of the statute to confirm the letters patent granted 22d of May, 1834, to the petitioner, Baron Heurteloup, for "improvements in certain parts of certain descriptions of fire-arms." March 5, 1836.

The petition stated, that the petitioner, in 1834, invented "certain improvements in fire-arms," and that he believed himself to be the true and first inventor of the said improvements, and every part thereof, and was not aware that any other person had invented or used the said improvements. The petition then set forth the specification, and stated that part of the said invention consists in a small tube, made of soft metal, and filled with detonating powder, which serves for priming the gun, the end of the tube being advanced to the touch-hole by the action of cocking the gun, while a small piece is cut off just by the touch-hole, and detonated there by the falling of the hammer, without exploding the powder in the remaining part of the tube. That since the granting the said letters patent, the petitioner had discovered that a patent was granted in France, in 1821, to one L. de Valdahon for an invention, whereof part consisted of a straw filled with detonating powder, brought to the touch-hole of the gun, and cut off as required to prime and fire the gun, but that the mode of bringing the straw tube to the touch-hole is totally different from the petitioner's, and does not constitute the gun a self-priming gun; and further, the tube is of straw instead of metal. That the petitioner believed the said invention of L. de Valdahon had never been used in England, or in France, or elsewhere, and was not known in England, otherwise than by the introduction into England of books printed and published in France, containing a description of the said invention. That no suit or action had been instituted.

There being no evidence of user of part of an invention contained in a published book, letters patent for such invention will be confirmed.

There was an affidavit by the petitioner verifying the petition, and also one by the Keeper of the printed books of the British Museum, stating that in 1832 twenty volumes of a French work, containing an account of expired patents, published under the direction of the government, had come into the Museum; in one volume of which the specification of the French patent was contained.

On a former day the judicial committee had directed a notice of the day of hearing to be given to L. de Valdahon, and on affidavit that such notice had been sent through the post office, directed to L. de Valdahon, Paris, their lordships recommended that the letters patent should be confirmed.

*In the Privy
Council.*

WESTRUPP & GIBBINS' PATENT.

March 5, 1836. This was an application by Joseph Wells, the assignee, to confirm the letters patent granted the 24th of May, 1831, to W. Gibbins and Thomas Westrupp, for "improvements in an apparatus for converting sea water, or otherwise impure water, into fresh and pure water" (a).

Letters patent will not be confirmed adversely to prior right. The exercise of the jurisdiction is purely discretionary. Costs of opposition will be given in some cases.

The petition stated the assignment of the letters patent of the respective grantees by indentures dated 9th of September, 1833, and 25th of July, 1834, respectively. That since the last date it was discovered that one of the modes of condensing steam from sea water was known to some person or persons, but not publicly or generally known or used, and that the petitioner believed the same never to have been practised before the date of the said letters patent. That no legal proceedings had taken place on the above patent.

The petition was accompanied by an affidavit by the survivor of the patentees, stating his belief that they were the true and first inventors.

The application was opposed, on the ground that part of the invention had been published many years before the patent in a well-known book, and had also been made the subject of a prior patent.

Rotch, in support of the petition, stated the invention to be for the particular mode of distilling by the use of the refrigerator. That this application arose in consequence of a schism

(a) *Specification*.—The invention as described in the specification, consisted in placing the condenser below the water line in the ship or vessel, and permitting the water in which such ship or vessel floated, to have free and full action on the outer surfaces of the pipes, through which the steam of salt water is passing, and thus rendering any attention for constantly supplying cold or condensing water to the refrigerating apparatus unnecessary, which it was (according to any of the processes known before the patent) stated to require.

The patentees then described and claimed two modes of accomplishing their invention. The first was for conducting the steam generated by cooking with sea water through a pipe to a refrigerating or condensing apparatus, which consisted of a coiled pipe in a tub, placed below the line of flotation of the ship. From the bottom of the tub an inlet pipe proceeded through the ship's side for the admission of a constant flow of cold water from the sea, and from the upper part of the same tub an eduction pipe passed through the ship's side, by which the cooling or condensing water passed away from the tub, by which means

a constant circulation or flow of cold water was kept up to the tub which condensed the steam passing through the coiled pipe within it.

The second part of the invention was thus explained:—"It consists of a simple pipe passing outside of the bow (or any other convenient place) of the ship, and, passing down towards the ship's bottom, enters through the planking, and the condensed water therefore runs into a cask placed below; by this means the water in which the ship floats will at all times be acting on the condensing pipe."

The inventors then claim their invention in the following words:—"Our invention consists, first, in applying a condenser in the manner shown, such condenser having an inlet and an outlet pipe placed below the water line or mark, as above described. And secondly, we claim the placing of a pipe or pipes (whether round or otherwise formed) on the outside of a ship or vessel, such pipe or pipes passing below the water line, and thus forming a condenser for the steam or vapour from a boiler, for the purpose of converting sea into fresh or pure water."

which had taken place among the directors of a company formed March 5, 1836. to work the patent of which Mr. Wells was the assignee, one portion of the directors wishing to prevent the completion of the engagement with the petitioner, pretending that they had discovered in a book that which interfered with the petitioner's patent and rendered it invalid. The part said to be old is the pipe going through the side of the vessel into the sea, and back again into the vessel.

Sir F. Pollock opposed the petition on the ground that part was old, and that the parties, instead of coming to the Privy Council to confirm that to which they are not entitled, should have gone to the Attorney General to have disclaimed that which was old, and made the patent good as to the rest, provided it be new.

Lord LYNTHURST: The petitioner must make out a case as strong as this; that if you had claimed for that which is old, and for that only, we should have confirmed the patent. This act was not meant to apply to every-day cases. This clause was altered after the act left the House of Lords. Now you would have a patent against the real inventor, if we confirmed it; I believe, when the clause was in the House of Lords the right of the real inventor was preserved.

Rotch: The whole of the patent is new, except one small connecting link, which certainly is old; but though old it was not generally used, and the inventor of the rest did not know that fact. We find in the Philosophical Transactions of 1670 a letter from a learned French gentleman, concerning the way of making sea water sweet.

Sir F. Pollock: I have the copies of two specifications, the one in 1806, the other in 1809, duly enrolled, and which every subject in this kingdom is bound to know. These two are precisely the patent now sought to be confirmed.

Lord LYNTHURST: I do not think the clause of the act was ever intended to apply to the case where the patentees choose to shut their eyes, when they might have gone to the office and seen this at once. The act could never be intended to apply to a case when two patents have been taken out for the same thing, that the subsequent patentee should have a right to come to the court, to apply to have the exclusive benefit of the invention, adversely to the rights and interests of the former patentee. It must have been meant to apply to a very different case. [Rotch: Supposing that both parties are going to work the patent; but if it is thirty years ago, and those parties are not going to carry it into practice? What is the meaning of the words of the act?] You are aware it is discretionary with us, particularly when you have another remedy; you may apply to the Attorney General for a disclaimer. [Rotch: If this remedy be open, I would rather adopt it. The words of the act are

The act not intended to confirm letters patent adversely to the rights of a prior patentee.

*In the Privy
Council.*

"publicly and generally used," not "publicly and generally known."'] There are joint patentees, and one of the patentees is dead. The surviving patentee makes an affidavit; how are we to be satisfied that the other patentee had not seen the specification? The affidavit is the most general affidavit that can be; it ought to have been pointed to this part of the patent; it is an echo of the original one, that they believed themselves the inventors.

Lord WYNFORD: I apprehend the object of this clause is, that if there are any very minute portions which have been used, and he swears that he did not know it, a very trifling thing, amounting to nothing, in that case the court may confirm it.

Lord LYNDHURST: This is a case in which the act of parliament leaves a discretion in the judicial committee, and I think it is impossible for us, sitting and hearing this case, to say this is a case in which we ought to exercise that discretion to advise the crown to confirm the patent. You have your remedy; you may disclaim it, if the Attorney General thinks proper to give you relief. The Attorney General may be applied to for that purpose.

Lord WYNFORD: That, perhaps, might be a ground for coming again, if you were dissatisfied with that; you would come and say, "Confirm the patent—I cannot have relief under the other branch of the act of parliament."

Rotch: I see nothing in the act which drives us to go and seek a remedy which we do not like.

Lord LYNDHURST: It is very difficult to lay down any precise rule or general rule to govern our discretion in a case of this description. I think we should not be justified in recommending the crown in this case.

Sir F. Pollock: Under the fifteenth section of the statute (3 & 4 W. 4, c. 41), which authorises your lordships to sit here, the costs of the application are in the power of the court. We are brought here to prevent the confirmation of a patent. We show two prior patents; the subjects of the realm are bound to know of these. We have an interest in another patent which would be interfered with. Every body is bound to know the specifications that are enrolled; they are as much matters of record, and as such to be treated and known, as acts of parliament. We have filed our objections, notwithstanding which the parties still come here.

Costs will be
given in some
cases of success-
ful opposition.

Lord LYNDHURST: I have read your objections, and if after that they choose to come, it is for them to take the consequences. My opinion on the subject of costs is this; if a party entitled to oppose does come and oppose, and opposes successfully, if we do not give costs we shall discourage persons coming to protect the interests of the public. We have the

power to give costs in any matter referred to us, and, sitting *In the Privy Council.* here as a judicial committee, we can give costs under the general act, not under the patent act.

Rotch : On the subject of costs, I hope your lordships will allow me to go into the particular situation of these parties, because the parties who are appearing now are three out of six directors, who have agreed with Mr. Wells to take his patent. [*Lord Lyndhurst* : Have we any affidavit of all this ?] The directors themselves are here to say the company are averse to the proceedings of these three directors who are opposing it.

Lord LYNDHURST : We cannot allow evidence, after the close of the case, as to costs—we do not allow evidence to be heard as to costs when the case is over, you know. You knew the objections. This was an experiment to see how far the courts will go. I know the noble and learned lord, who was the patron of this act, and under whose particular direction it was drawn, never meant that a loose construction should be given to it; to bring a case within the act so as to justify the interposition of the judicial committee, he always considered you must make out some especial and strong case.

An especial and strong case must be made out to justify the interposition of the judicial committee.

Petition dismissed with costs.

EXTENSION OF LETTERS PATENT.

ERARD'S PATENT.

*Cor. Lord Lyndhurst ; Lord Brougham ; Parke, B. ;
Hon. T. Erskine.*

This was an application (a) by Orpheus, commonly called Pierre Dec. 15, 1835. Erard, for an extension of the term of several letters patent,

(a) *Practice on the hearing of the Petition.*—This was the first application for an extension of the term under the act 5 & 6 W. 4, c. 83, and their lordships having inquired whether the Attorney General had received notice of the hearing, intimated that in all cases of unopposed applications, the Attorney General should attend on the part of the crown. In subsequent cases, whether opposed or not, the Attorney General has appeared to watch the progress of the case made for the petitioners. See *ante* 474, & *post*.

Their lordships asked for a copy of the specification, and on the counsel for the petitioner suggesting that he did not consider evidence as to that would be gone into, their lordships said they must see whether the patent was valid; that, if palpably bad, it would not be extended. On an examination of the cases it will be found that their lordships have required a *prima facie* case to

be made as to the validity of the patent. The questions arising on the specification stand on a different footing from the questions of novelty, and the petitioner would appear bound to show that the invention described would succeed in practice, and to be that for which the patent was granted.

Their lordships also intimated, that as this proceeding was a substitution for a bill in parliament, they should follow a similar course to that which would be followed by parliament, and adopt rules of evidence as nearly as possible resembling the rules of evidence in courts of law.

Their lordships in the subsequent cases have recommended the extension of the term of letters patent on grounds similar to those adopted by the legislature, and recited in the acts of prolongation. See *ante* 40.

*In the Privy
Council.*
A. D. 1835.

granted to him for "certain improvements in piano fortes, and other keyed musical instruments" (b), and also for other letters patent for "certain improvements in piano fortes" (c).

Cresswell (J. Peel with him) appeared in support of the petition, which stated that the petitioner, in conjunction with his uncle, Sebastian Erard, had laboured upwards of thirty years to improve the piano, and to perfect the invention the subject of the first letters patent. That previous to this invention there were two distinct systems of action in the piano fortes then in use, the one known by the technical name of the "check," or grand action, the other (being without a check), the "square piano forte action." That the former, while it possessed great precision of blow, was slow in the power of repeating the notes, whereas the latter, on the contrary, was more ready to repeat, but wanting in power and precision. That as the art of playing progressed these defects became more sensible, and the object to be attained was to produce a new action, combining the advantages of the two systems, and which, by uniting power and precision with pliability and rapidity of action, would enable the performer to modulate with the touch the blow of the hammer on the string at pleasure, and thereby greatly add to the beauty of the tones and the brilliancy of the execution. That the invention of a simple and durable mechanism to effect these combined objects required much genius to conceive and ingenuity to construct. That in the introduction of the invention great difficulties, opposition, and prejudices, had to be contended with. That five years were expended in the instruction of workmen, and before a single instrument was ready for sale; and after a further consumption of many years in making the instrument known, and when its superiority was generally admitted, the prejudices infused into the public by the makers of the old piano fortes against the durability of the instruments constructed on the new principle, presented a serious obstacle to their introduction; that the experience of many years can alone overcome these difficulties, and it is only within the last few years that the instrument has become generally known and appreciated. That since the original invention the petitioner had invented several improvements, whereby it was rendered applicable to every form of piano, instead of being confined to the grand piano forte, and which improvements were the subject of the other letters patent. That in addition to the number of years expended in perfecting the invention, the

(b) These letters patent were as follows: for England, 22d of December, 1821; for Scotland, 6th of April, 1822; and for Ireland, 14th of December, 1822.

(c) These letters patent were for England, and dated 5th of January, 1826.

working the patent amounted to £15,000 over and returns. *In the Privy Council.*

papers containing the advertisements were put in (c). witnesses were examined as to the outlay of capital and as; the number of instruments made and sold in each advantages and superiority of the instrument. There a considerable expense incurred in further improve- on the details described in the specification; but they to be improvements and alterations in furtherance of principle, and not deviations from the general features vention. That the first instrument made under the d answered perfectly well, and was still in use.

second patent had two objects, one of which was to machinery of the former patent to piano fortes of constructions, and the other was with reference to the so that if the first letters patent were extended, no one the second patent during the term so extended, or nce of the new letters patent.

LYNDHURST: Upon a consideration of all the circum- ve think that a sufficiently strong case has been made stify us in recommending to his majesty to extend the ese patents for the period of seven years, but we think as been made out to justify us in so recommending to ty with respect to the second patent granted in 1825. irst patent we mean those for England, Ireland, and

In cases of this kind we expect a very strong case ip to be made out, as well as a strong case upon the the invention.

Report accordingly.

SWAINE'S PATENT.

as an application for a prolongation of the term of March 1, 1837. tent, granted the 9th of October, 1832, to E. S. Swaine, method of producing and preserving artificial mineral and for machinery to effect the same."

were the "Gazette" of the 9th, 13th, f October, 1835; the "Times," 'and "Post," of the 9th and 12th of ertising the intention to apply for on; the "Gazette" of the 4th of he "Post" and "Chronicle" of the nber, and the "Times" of the 1st of us to the day on which application de to fix the hearing; and the "Ga-

zette" of the 8th of December, the "Chronicle" and "Post" of the 7th of December, and the "Times" of the 8th of December, advertising the day appointed for the hearing.

The notice of the intention to apply for an extension, and of the day on which application will be made to fix the hearing of the petition, are now included in one advertisement.

*In the Privy
Council.*
A. D. 1837.

The petition stated, that after the grant of the patent, considerable delay had been occasioned in obtaining the advice of persons of science, and in selecting a spot for the new manufacture, which was ultimately fixed at Brighton. That the requisite machinery, according to plans received from abroad, required great accuracy of construction, which, with the erection of buildings, occasioned great delay, so that the premises for the sale of the mineral waters were not opened till late in the summer of 1823. That it required considerable time before the qualities of the mineral waters could be known, and that it was not until within the last two or three years that public confidence became so far established as to give any prospect of a reasonable remuneration for the capital expended, and that unless the term of the patent be prolonged, the inventor will not only be without remuneration, but will have sustained a heavy loss.

Wigram and *Shee* appeared in support of the petitioner, and *Sir J. Campbell*, A. G., on the part of the crown, stated, that he appeared, not to offer any active opposition, but to watch the evidence particularly with regard to the novelty of the invention.

Some medical men were called to prove the utility of the invention, and the close resemblance which the artificial bore to the natural mineral waters of Germany—also their general efficacy. The payments in respect of the patent, from 1822 to 1836, amounted to £28,990, and the receipts to £16,183, of which £7519 was received from the sale of the waters, and £8664 as subscriptions to the establishment. The loss, as it appeared on the books, was £15,709. A profit arose in 1832, and the total profit from 1832 to 1835 was £2902.

Sir J. Campbell, A. G., said that he should offer no evidence, but would beg to call their lordships' attention to the sufficiency of the specification.

LORD LYNDEHURST: Applications of this kind are of very considerable importance, and require to be investigated with a great deal of attention. We have bestowed that attention in this case, and we consider the invention as very meritorious, the result of a great deal of labour, care, and science, and that it is extremely useful in its effects. We are satisfied by reasonable evidence (a) that the party has sustained very considerable loss, and under these circumstances we think that the period ought to

(a) The evidence on the accounts was not complete; books of accounts were produced, but the hand-writing of all the entries could not be proved; they had been regularly kept, and had been examined by an accountant, who expressed his opinion that they were the genuine books of the concern. Their lordships intimated, that in re-

ceiving the evidence which had been offered in this case as reasonable evidence of the pecuniary results of the concern, it must not be considered as a precedent, inasmuch as their lordships, under all the circumstances of the case, were satisfied with a less amount of evidence than they should probably consider necessary in other cases.

be extended. The only point about which we entertain doubt is, *In the Privy Council.*
 as to the extent of time to which it should be extended. We think upon the whole, looking at the profit acquired the last year, and the preceding year, and the year before, that it ought to be extended for seven years, in order to give the patentee a fair opportunity of reimbursing himself, and making some profit upon this invention.

Report accordingly (b).

WRIGHT'S PATENT.

Cor. Lord Lyndhurst ; Lord Brougham ; Hon. T. Erskine ; Bosanquet, J.

This was an application by the assignees, H. Shuttleworth and D. F. Taylor, for an extension of the term of the letters patent, granted the 15th of May, 1824, to L. W. Wright, for "certain combinations and improvements in machinery for making pins." July 4, 1837.

Sir F. Pollock and M. D. Hill appeared in support of the petition; *Maule* and *Godson* on behalf of Messrs. Kirby; and *James* on behalf of the administrators of a deceased partner of the petitioners; Sir J. Campbell, A. G., appeared for the crown.

The deeds of purchase, assignment, and partnership, were put in; also an agreement to assign the letters patent to Taylor and Garbett as soon as obtained, with a covenant to perfect the invention.

Maule submitted, that the execution of the deeds must be proved in the usual manner; in answer to which it was stated, that no notice of intention to dispute the title was given in the objections delivered in pursuance of the rules of the Privy Council.

Their lordships intimated, that it was incumbent on the applicants for the extension to make out their title.

The title of the petitioners must be proved.

Mr. Bryan Donkin described the invention as an aggregate machine, consisting of several machines, each performing a distinct operation, but so combined that its operations succeed each other in regular order. The first machine being for the purpose of measuring and straightening the wire; the next was combined with that for cutting the wire off of any definite length; the next, the carrier to convey the wire cut off to two pointing machines in succession; the pin being pointed was

(b) New letters patent were granted the 6th of June, 1837, to E. S. Swaine, for seven years, to be computed from the 9th of October, 1837.

*In the Privy
Council.
A.D. 1837.*

carried forward to the heading apparatus. The heading is performed by two operations; the end of the wire is what is technically called "upset" in the first heading machine; the carrier then removes it to the second heading machine, in which it is struck with a die and completed; then there is a contrivance for drawing the pin out of that part of the machine and dropping it into the common receptacle for the completed pins. The novelty of this invention consisted in the combined apparatus for performing the several operations. Mr. Brunel and Mr. Carpmael gave evidence to the same effect.

Mr. E. Taylor, superintendent of Taylor & Co.'s pin factory, stated the machine to have been in full operation about five years, but was not in operation at all ten years ago. This arose from Wright the patentee neglecting to complete the machines, which being of a complicated character, great difficulty was experienced in completing them. That his brother and Wright became bankrupts, prior to which his brother had expended £15,000 for tools and machinery; that he had paid upwards of that for the pin machinery previous to the end of 1831. That Wright received £3755 for his patent, and was assisted with money during the experiments before the patent was taken out; and his neglect to complete the machines arose from his being engaged by Kirby on other machinery. That up to the time of his brother's bankruptcy there had been no profits from the pins. The invention then remained dormant for some time, from November 1829, to Christmas 1831, when his brother formed a new partnership. That there were eighty-two machines; the total expense of which and of the patent was £21,000. From January, 1832, the date of the partnership of Taylor, Shuttleworth, and Watnerby, to June, 1834, the profits were £1484; in the next six months they were £1035; in the next six months £971; no balance had taken place since. That Watnerby, who kept the books, was dead, and there was at this time a sum of about £15,000 unsatisfied to the partnership.

On the part of the opponents, Mr. Farey and other witnesses were called to prove the want of novelty, and the imperfection of the invention, and the defects of the specification of Wright; the similarity of a machine made for Kirby, according to a former patent, which he had purchased, and of the inventions disclosed in the specifications of some other patents.

M. D. Hill having replied for the petitioners, their lordships intimated their intention to recommend an extension of the patent for five years.

Maule prayed that a condition might be imposed, securing to Messrs. Kirby and Beard a remuneration for the expenses they had incurred from their connexion with Wright, and that they might be declared entitled to the joint use of the new letters

patent with the petitioners, and that the extension should be subject to the payment of costs. *In the Privy Council.*

James prayed that the interests of the executors of Watnerby might be recognised.

Their lordships intimated, that they should recommend the extension of the patent in favour of those in whom the legal estate of the letters patent was vested at the time of the application, leaving to Messrs. Kirby, and the administrators of Mr. Watnerby, any claim they might have at law or in equity, and that there should be no costs.

Report accordingly (*a*).

STAFFORD'S PATENT.

This was an application for the prolongation of the term of July 4, 1838. the letters patent, granted the 24th of December, 1824, to Daniel Stafford, for "certain improvements in carriages."

The invention consisted in suspending the coach from some higher part of its body, instead of at the bottom, the effect of which is, to bring the centre of gravity below the point of suspension, and to obviate in a great measure the danger of upsetting. Some coachmen proved that they had driven a coach constructed on the petitioner's principle over banks of a height, and round sharp corners at a speed, sufficient to have upset a coach suspended in the ordinary manner. From the mode of suspending, and the use of transverse instead of lateral springs, the body of the coach had an oscillating motion on meeting with any obstacle, and always retained its vertical position. On one occasion of an accident, namely, the breaking of the hind axle-tree and the hind wheel coming off, the coach was not upset, nor any one hurt or displaced from his seat. The patentee had spent all the money he could obtain, not less than £2000, on the invention, and in endeavouring to introduce it, by advertising and otherwise, but had only succeeded in a few instances; that he had received no returns, and been in great difficulties from the expenditure incurred. The coach proprietors opposed its introduction on the ground of expense, because they would be obliged to alter all their coaches so soon as the public knew they could be carried safely. That

(*a*) New letters patent were accordingly granted the 21st of August, 1837, to H. Shuttleworth and

D. F. Taylor, for five years from the 15th of May, 1838.

In the Privy Council.

the coach-makers in the north set their faces entirely against it, and one of the largest coach proprietors said, he would have nothing to do with it unless guaranteed from all loss; that he had three hundred coaches, which would all be thrown on his hands if Mr. Stafford's coach was brought forward; that the introduction of a change of this kind must of necessity be very slow.

The "London Gazette" of the 13th, 16th, and 20th of February; the "Times," "Morning Chronicle," and "Herald," of the 16th of February; also eight different country papers^(a) containing the advertisements, were put in; also the letters patent and specification.

LORD LYNTHURST: The original act of parliament allows fourteen years, and it was considered that fourteen years would be the time during which the party would be remunerated; it turns out, however, that Mr. Stafford has received not only no remuneration, but that he has been an actual loser; we think, under these circumstances, it is not unreasonable that he should have the full addition of seven years, only half the length of term which the legislature at the time of James the First contemplated as the proper remuneration.

Report accordingly ^(b).

KOLLMAN'S PATENT.

Cor. Lord Lyndhurst; Lord Brougham; Bosanquet, J.; Vaughan, J.; Dr. Lushington.

Feb. 1839.

This was an application for the extension of the term of the letters patent to G. A. Kollman, for "improvements in the mechanism and general construction of piano fortes."

The advertisements of the application and of the hearing were put in. The invention was described to consist—first, in striking down towards the bridge and sounding board, instead of away from the bridge and sounding board, as in the old piano; the effect of which was to improve the tone in purity, power, and fulness; secondly, in the framework for fixing of

(a) The petitioner had resided at some time during the patent at the place or in the county in which these papers were published. It appeared that the manufacture had been carried on by coach-makers in London, and not elsewhere; so that the advertisements in the country papers would

appear to have been unnecessary; if necessary, they are not in pursuance of the statute.

(b) New letters patent were granted the 21st of December, 1838, for seven years from the 24th of December.

pegs to which the wires are attached; the arrangements adding of the use of strong wires, and of adjusting their tension *In the Privy Council.* with great accuracy, and effectually maintaining the wire in state of tension, notwithstanding the motion of the instrument. The tension necessarily put upon the wires deranges pianos on the old construction very quickly; they also come out of tune by moving, or with change of temperature. The instrument made according to Mr. Kollman's invention could be carried to two or three concerts in succession, and would not require tuning, whereas an instrument on the old construction must be tuned after each concert. The number of instruments sold by Mr. Kollman was twenty-three, and hitherto he has been a great loser by his invention.

The Attorney General having cross-examined the witnesses as to the nature and novelty of the invention, stated that he did not feel himself called upon, on the part of the public, to oppose the prayer of the petition. The invention appeared to be a meritorious one, though from circumstances beyond the control of the patentee, its merits had not been sufficiently appreciated.

Lord LYNDHURST: We think this is a case for an extension of seven years.

Report accordingly.

DOWNTON'S PATENT.

Cor. Lord Lyndhurst; Lord Brougham; Sir H. Jenner;
Dr. Lushington.

This was an application by Betsy Downton, widow, and administratrix of J. Downton, to whom letters patent had been granted the 18th of June, 1825, for "improvements in water-works."
June 13, 1839.

In the petition, after stating the invention and the grant of the letters patent, further stated that the patentee encountered many difficulties, principally arising from his want of capital and connexion, he being a foreman shipwright. That he spent a small capital in taking out the patent, and could not prosecute the invention, until in 1827 he succeeded in borrowing £1000 at £5 per cent. That from various causes, and the expenses of a large family, the patentee died in debt, to the amount of £2000; that the creditors released his estate on giving a payment of 8s. in the pound. That the profits arising from the gradually increasing sale of the patent article

*In the Privy
Council.*
A. D. 1839.

had been interfered with by infringements both prior and subsequent to the death of the patentee, and that the petitioner had not the means to defend the patent; but that the invention is now appreciated, and if the term be extended the petitioner would be enabled to support her family, and derive some profits from the invention.

Objections.

The application was opposed, and the grounds of opposition stated in the notice of objections were, the high price at which the articles had been charged; that the patentee would not allow the trade any advantage; that the want of capital being alleged as the cause why the invention was not introduced, the petitioner did not appear to be in any better position than the patentee had been.

M. D. Hill and Roebuck appeared in support of the petition, and Wakefield for the opponents.

The invention was proved to be very useful for ships, in which it is necessary to get rid of the foul air and other contents of the water closet below the level of the water. The patentee had sold the patent closet at £15; the cost of the labour and materials would be £11; allowing twenty-five per cent. for the employment of capital, the cost became £13. 10s., and £1. 10s. remained for patent right.

It appeared that 920 had been sold; that the invention was opposed by the trade; and that the amount of gross sales amounted to £14,622, being an average of £1000 a year, and £250 a year for the profits. The cost of experiments, and of the letters patent, and of necessary tools, was not less than from £500 to £600, and much labour and time were expended upon them. One of the creditors, who had received 8s. in the pound, on a debt of £1173, was called to speak to the character of the inventor and the circumstance of his insolvency; and he stated, that the inventor had raised himself wholly by his industry, and brought up a family of ten children. The remuneration received during twelve years was from £200 to £250 per annum, which sum included the profit on capital, and the remuneration for superintendence and loss of time, and the patent right.

A Lord: We assume that an article which may be placed below the water line must be useful, and the fact of 924 being sold, when it costs three or four times as much as the common article, is very strong evidence, unless that is false testimony.

Wakefield for the opponents: The case made out has nothing to do with the extension of the patent; it may be a good case for alms to Mrs. Downton and her family. Mr. Downton has had the usual term of the patent; and from the want of capital, or some other cause, he has made little by it. I understand patents to have been usually extended on the grounds that such extension would be beneficial to the public.

A Lord: When a party has shown great ingenuity in an in-

vention, and, from want of capital and means, has not been able to obtain an adequate return, we have over and over again extended the patent under such circumstances. The evidence is that more than £200 a year has been received, but part of that £200 a year consists of the profit upon capital. If it is a mode of advantageously employing capital, it is an additional reward for the invention. The questions are, is it a useful invention; is it beneficial to the public; is it an invention of that character which would lead us to interpose; is there ingenuity in the invention, and has the party been remunerated? My doubt is this. It appears, Mr. Hill, you would make £200 a year. The respectable witness, Mr. Nairn, whose evidence in point of feeling does him and Mr. Downton so much honour, went to show (and the rest of the evidence is consistent with it) that if you go on you will get £200 a year. Then if that has been the usual average profit during the fourteen years of the patent, or say ten or twelve years, since it has come into use, and you have been able to overcome the opposition of the plumbers, is not this the ordinary case; and would it be just for the party at the end of the fourteen years to come and say, "I have only made £200 a year; I want to make the same sum so many years more." We generally want this proof—that they made nothing for the first seven or eight years, and it only began to be profitable during the latter years. It is no case for an extension only to show that you made £200 a year for the first fourteen years, and you want to make £200 a year for seven years more. That I take to be the objection.

In the Privy Council.
A.D. 1839.

The questions are, as to the novelty and utility of the invention, and sufficiency of the remuneration.

The absence of all profits during a part of the term a ground for extension.

Hill: I do not divide the 924 over the fourteen years. In point of fact the sale is increasing: I have here a list of the number sold in each year. It appears that in 1825, 19 closets were sold; in 1826, 33; in 1827, 90; in 1828, 92; in 1829, 32; in 1830, 44; in 1831, 46; in 1832, 63; in 1833, 74; in 1834, 84; in 1835, 113. I can explain the small number in 1829, by a piracy at that time; and it went on increasing from 1829 till 1835, when the patentee died. In 1836, 73 closets were sold; in 1837, 70; in 1838, 69; in 1839, 22.

Lord LYNTHURST: Their lordships are of opinion, that the term of the patent should be extended for five years, and will report to her majesty accordingly.

Roebuck applied for the extra costs occasioned by the opposition.

A Lord: I think so in such a case as this; there was no ground for the opposition. The Attorney General is here for the public at all events (a).

(a) *Costs.*—The court ordered it to be referred to a master of the Queen's Bench to tax "all such extraordinary costs as may have been incurred on

behalf of the said Betsy Downton, in consequence of the caveat and opposition." These costs were taxed at £61. 10s.

KAY'S PATENT.

Cor. Lord Lyndhurst ; Lord Brougham ; Sir H. Jenner ;
Dr. Lushington.

In the Privy
Council.
June 13, 1839.

This was an application by the patentee for an extension of the terms of the several letters patent (a) granted to James Kay, for "improved machinery for preparing and spinning flax."

Sir F. Pollock and Booth appeared for the petitioner (b); Cresswell for the opponents; and the Attorney General (Sir J. Campbell) for the crown.

Sir F. Pollock (in reply to a question from their lordships): The validity of the patent is disputed; an action has been tried and a verdict found establishing the patent; objections had been afterwards made in the Court of Chancery, and the case is now before the Master of the Rolls for further directions.

Cresswell: Though the verdict had been found for the plaintiff, a special indorsement was made on the *postea*; in consequence of this the Master of the Rolls sent a case to the Court of Common Pleas, consisting of the issue, the verdict, the *postea*, and the specification, desiring the opinion of that court, whether it was a valid patent or not; that court, after argument and time taken to consider, returned a certificate to the Master of the Rolls, that it was not a valid patent, and gave their reasons to the counsel on each side; the case had been argued before the Master of the Rolls on further directions, and now stood for his lordship's judgment.

Letters patent being about to expire, the Privy Council will hear a petition for extension, notwithstanding any doubts as to the validity of the patent.

Their lordships intimated that, the case not being decided in the Court of Chancery, they felt some difficulty in proceeding, and should not do so were it not that the patent would expire in a few days; but that this court was not to be substituted in the place of the Court of Chancery to decide the legal question. [Sir F. Pollock: It is not necessary for me to go further than to show that there is a reasonable ground for supposing that the patent would appear to be valid, leaving to the Court of Chancery to decide upon that question.] [Sir J. Campbell, A.G.: If this were *res judicata*, and the court had decided this not to be a valid patent, I should strenuously resist a pro-

(a) The letters patent for England were dated 26th July, 1825; for Scotland, 23d June, 1825; and for Ireland, 9th December, 1826.

(b) The petition, after reciting the grant of the several letters patent, and setting forth the specification, stated the various legal proceedings which had taken place, and that these proceed-

ings were still pending; but that the petitioner could not postpone the present application until their decision, as the patents were nearly expired. The petition further stated that, by reason of the litigation and expenses incurred, the inventor had not been adequately remunerated.

longation of the term, but being *lis pendens* I do not conceive your lordships could be considered as deciding that, by recommending a prolongation of the patent in case it should be established.] Their lordships decided that the patent being near its expiration, they would proceed, as the prolongation would be of no value if the Court of Chancery should decide against the validity of the patent. [*Cresswell*: The prolongation of a patent ought not to be recommended by your lordships unless the houses of parliament, for which this tribunal was substituted, would have seen it right to have granted a prolongation.] The usage of the House of Lords has been to grant an extension on the party making out a *prima facie* case, leaving the validity of the patent for the determination of the courts of law (c). In the Privy Council.
Sufficient to establish a *prima facie* of the validity of the patent, in applications to the legislature.

The papers containing the advertisements were put in (d), and the service of notice on the parties who had entered caveats proved.

J. Kay, jun., a son of the petitioner. I came into my father's employ in 1823; he was a cotton spinner, and at that time employed in making experiments on flax. He set up five or six machines for the purpose of these experiments before 1825, when he set up some machinery for spinning flax for sale. The machines set up for experiments differed materially from those now in use—in the maceration of the flax, and in the distance of the rollers. At that time I knew of no wet spinning except by hand. My father was employed for two years and spent hundreds of pounds on experiments before taking out his patent. The fineness of flax thread or yarn is measured by the number of leys to the pound. A ley is 300 yards. Formerly the extreme fineness of spun flax was about forty leys to the pound. My father has spun 300 leys to the pound. He erected different machines for experiments; he macerated the flax partially and in different ways, and spun it on machines of different descriptions; his object was to spin flax finer than had been done before. The experiments were made with rollers placed at different distances; he at last discovered 2½ inches to be the best distance, and then took out his patent. The invention did not get into general use till 1829. The license money was one shilling a spindle; there are on an average 160 spindles in a machine. On cross-examination:—My father was a cotton spinner; spinning is always carried on by retaining and drawing rollers. Cotton is spun at a distance or ratch of 1½ inch; every one acquainted with cotton spinning knows that the Evidence.

(c) See cases in which the term of letters patent has been extended by act of parliament. *Ante* 40.

(d) The "Gazette" of the 25th and 28th of

December, 1838, and 8th of January, 1839; the "Manchester Guardian" of the 29th of December, 1838, and 2d and 5th of January, 1839.

*In the Privy
Council.*

length of the ratch must be determined by the length of the fibre and the fineness of the roving; in flax spinning it depends on the quality of the flax and the number to be spun; for a high number a fine roving must be prepared. My father spun at from 6 to $2\frac{1}{4}$ inches—he had a slide for bringing the rollers nearer together. The rollers could never be brought so near together before; he found the more he wetted the nearer he could bring the rollers. The soaking was continued to 1827, and then abandoned; the flax is now passed through a trough of hot water, and thence immediately to the rollers. All the macerating part of the mill machinery has been abandoned since 1827. It is drawn through to the retaining roller, and then the drawing rollers extend it. The experiments were going on under my superintendence during two years.

Joshua Wordsworth, a machine maker at Leeds: I have been acquainted with the flax trade for forty years. Before Kay's patent in 1825, flax was spun dry, and wetted before the twist was put in, at a ratch when fixed of about 24 inches; the ratch was sometimes made to vary from 15 to 30 inches. Previous to Kay's patent there was no machine in existence to spin flax at $2\frac{1}{4}$ inches. The flax can be drawn by a ratch shorter than the fibre itself. Before Kay's patent I never saw flax finer than fifty leys to the pound; in Scotland it was generally about fifteen leys, and in England from fourteen to twenty-five; by Kay's method it is spun at 200, and I have seen some at 300. Mr. Kay's was a new machine, it will spin only macerated flax, it will not spin dry flax, or wool, or cotton. If the fibre be longer than the ratch it cannot be drawn; the rollers hold the fibre at both ends. The invention began to get into general use in 1827. I have made many hundred machines. The mode in which the maceration is effected has been altered; the passing through water without steeping is called maceration; it remains in about three minutes. The water is at a temperature of about 95° F.; the hotter the water the quicker the maceration.

A Lord: The invention claimed is not for macerating flax, but for new machinery to macerate flax. It appears that the machinery has been abandoned, and some other adopted. [Sir F. Pollock: If your lordships are inclined to entertain that question, I think you will see, that if a man discovers a principle and produces the result by means of machinery, the two together form the entire invention.] I think the discovery is, that by macerating flax you apply it to more advantage, but you do not claim that as the invention; you claim the machinery by which it is macerated, assuming that macerating was an old process, previously known; and in asking for that, he thought he could not claim a patent for macerating. He does not claim in his patent the macerating the flax with a view to

its spinning, but he only claims the new machinery, that is, a new mode of doing it. I do not infringe your patent by doing that by other machinery. [Sir F. Pollock: That will depend upon this—whether if a man makes a discovery and gives it to the world in a particular shape, but which admits of being instantly copied by the substitution of mechanical equivalents, or by the adoption of other means which are quite obvious, it is not to be protected? I apprehend the law will protect that.]

Let me ask you this, Mr. Cresswell—suppose the patent to be valid; suppose the decision had been already given in the petitioner's favour, that he was possessed of a judgment of law, either an injunction against you to restrain the pirating, or a verdict in an action, or in any other way you choose—suppose the validity is established, have you (suppose you put it upon that footing) any case against our granting an extension? [Cresswell: I think I have, and if your lordships please I will state it at once.]

We think, after all the consideration we can give it, we must come to the conclusion, that we will not inquire into the validity of the patent, and as our decision will not affect the decision of the Court of Chancery, we will assume for this purpose, that it is a valid patent; and then the only question would be, whether this gentleman is entitled to a renewal. See the inconvenience of any other course; suppose we were to lay down the principle and come to a decision, that we would not extend the patent on the ground that it was an invalid patent, and a few days hence the Master of the Rolls should decide that it was a valid patent, we should do a great wrong; while, on the other hand, if we assume the patent to be valid, we do no harm. [Cresswell: The original monopoly is sufficient.] Then we wish to know, whether the original monopoly has been sufficiently remunerated? If it has been sufficiently remunerated, we shall not extend the patent; but if it has not been remunerated, and there is ingenuity in the invention, and usefulness, and he has been almost a loser by it, there seems no reason why it should not be extended for a time sufficient to remunerate him. [Cresswell: Then your lordships inform me that you will not, in deciding upon this extension, decide upon the validity of the patent.] Yes; we should have adjourned this petition if it had been possible to have had the judgment of the Master of the Rolls before the patent expired; but as we cannot do that, we should do injustice to decide against the validity of the patent, and as we cannot do that we shall assume, for the purpose of the present question, that it is a valid patent, because our judgment will go for nothing if the judgment of the Master of the Rolls should be against it. We can do no harm by assuming the validity of the patent, and we should do irreparable injury to Mr. Kay if we do not, unless you mean to say that the invention is of no use.

In the Privy Council.

The validity of letters patent being before disputed in another court, the Privy Council will assume them to be valid.

In the Privy Council.

Charles Bucke, solicitor to Mr. Kay since 1834:—I demanded compensation from most of the flax-spinners in England, Scotland, and Ireland, for using Kay's invention. The total sum received was £7795. In making out the accounts, I have charged Kay at the same rate as was received from others, and the total is £8172. Not more than £500 was received during the last two years. There has been only one new license during the last year; the rest was for increases. I believe nearly all the flax-spinners use Kay's invention. The sums received by way of compensation were for the future as well as the past. The payment is according to the number of spindles. The value of an extension for seven years would be considerably above £10,000, and including Scotland and Ireland would be worth £20,000. The number of spinners would increase considerably (e). The law expenses of Mr. Kay amount to £3700; the three patents cost about £500, and the machinery £500. If Mr. Kay succeeds in the action, there will probably be £2000 costs allowed. The £8172 profit might be extended to £10,000 in respect of Scotland and Ireland.

Necessary expenses may be deducted from the profits.

A Lord: You must allow £1700 for the law expenses, £500 for experiments, £500 for the patents, and £500 for other law expenses—that will be £3200; which leaves £6800 for profit.

Sir F. Pollock: Supposing the question relative to the patent to be passed by, my case is this; Mr. Kay has certainly by experiments, whether philosophical or not, obtained a point which has induced a start in the manufacture of flax in this country which it is impossible to overstate, and it is impossible to overstate the benefit he has conferred upon the country, and he has not received an adequate remuneration. I presume Mr. Kay himself would not be heard to state what the actual result has been, but he begins with an outlay of £500—his patents cost him another £500—that is, £1000; he is not repaid that for a great many years, and altogether he has received not more than £5000 or £6000, for a discovery which has actually conferred upon the country the benefit of millions, and which opens a source of national wealth and trade to which you can put no limit. [*Cresswell:* That would be a ground for a parliamentary grant.] No; it is much the safest way to reward every man of genius according to his success.

Judgment.

Their lordships are of opinion that the patent should be extended, but that an extension for three years will satisfy the justice of the case.

Report accordingly (f).

(e) Sir F. Pollock read an abstract from a return to the House of Commons, by which it appeared that in 1825 (the date of the patent) the quantity of yarn spun was 40,261; in 1835 it had increased to 2,613,795; and in 1838 to 14,923,332.

(f) New letters patent were granted, but the decision of the Court of Chancery was against the validity of the patent, and that decision on appeal to the House of Lords was affirmed.

ROBERTS'S PATENT.

Cor. The Lord President; Lord *Lyndhurst*; Lord *Brougham*;
Sir *H. Jenner*.

This was an application by the patentee for an extension of the several letters patent (a) granted to Richard Roberts, for ^{*In the Privy Council.*} Feb. 22, 1839. "an improvement or certain improvements of, in, or applicable to, the mule, billy, jenny, stretching frame, or any other machine or machines, however designated or named, used in spinning cotton, wool, or other fibrous substances, and in which either the spindles recede from or approach to the rollers or other deliverers of the said fibrous substances, or in which such rollers or other deliverers recede from or approach to the spindles."

The petition described the dependence of the spinning, before ^{*The petition.*} the invention of the self-acting mules, on the head spinner, and the interruptions and inconveniences to which the masters were subjected by combinations among the head spinners. That the petitioner had been repeatedly and earnestly solicited to turn his attention to the invention of a machine, whereby all the motions and operations of the mule might be completed without manual labour; and after a year of incessant labour, a machine was constructed and put to work early in 1825. That in July, 1825, the success of the invention being then known, the premises were destroyed by a fire, believed to have been the act of an incendiary; that a loss of above £10,000 beyond the insurance was sustained, and the same office refused to insure the premises when restored. That from 1826 to 1831 the business of spinning was carried on without any disputes between the masters and head spinners, and few machines were ordered; but in 1831, an extensive combination being found among the head spinners, many machines were ordered. That the success of the invention led to many piracies, which interfered greatly with the orders for the invention, while legal proceedings for stopping such infringements were pending; that during the last few years orders were delayed in expectation of the invention being open to the public. The petition, after setting forth the various interruptions which had been occasioned in the enjoyment of the invention by the petitioner and his partner, and the amount of receipts and expenditure, stated that the profits on the whole did not exceed £7000, a sum considerably less than

(a) The letters patent for England were dated 29th of March, 1825; for Scotland, 5th of April, 1825; and for Ireland, 1st of October, 1825.

In the Privy Council.

the loss sustained by reason of the fire, and the average profits on the capital employed in business.

Sir F. Pollock and Teed appeared in support of the petition; and the Attorney General on the part of the crown.

Sir F. Pollock having opened the case on the part of the petitioner—

Sir J. Campbell, A. G., stated that, the facts being made out to their lordships' satisfaction, he saw no objection on the part of the public to the prayer of the petition being granted.

Evidence.

Mr. B. Fothergill, manager of the works of Sharp & Roberts: Formerly the head spinner had to regulate the tension of the yarn by pressing his hand upon it; and also to move the carriage towards the rollers, and to regulate by his hand the form of the cop; the consequence was, that if he did not by one hand regulate the uniform motion of the machine to what was required for the full tension of the yarn, he would either break it or leave what are called "snarls" in the yarn, so that it required considerable tact to perform the operation correctly. The machine performs the operations perfectly, the yarn is decidedly superior to that produced by the old process, it is more uniform in the twist, and less waste is made. About 600,000 spindles have been sold. The fire broke out on a Sunday afternoon, in several unconnected parts of the premises. The crowd used violent language against the machine. There were marks on a wall of persons having been on the premises. The loss was about £13,000; one office refused to insure again.

Mr. D. Cheetham, a cotton spinner: We have used 230,000 spindles on the self-acting mules; they answer perfectly well; the first outlay is recovered in from two to three years; they will last from fifteen to twenty years, or as long as the average of machinery. There was a great prejudice against them at first, and we have had mischief at one of our manufactories in consequence of our own managers being opposed to them. The men were jealous of them; we find this occur in all cases. The self-acting machines are more accurate than hands, and there is less loss of yarn. In 1824, I applied with other cotton spinners to Mr. Roberts, requesting him to make a machine which should supersede manual labour.

Mr. W. H. Forster, book-keeper to Messrs. Sharp & Roberts: I produce a statement from the books of the expenditure and receipts in connexion with the patents. The expenditure includes remuneration to Mr. Roberts and his partners, according to the time which they respectively devoted to the invention; the payments to pattern makers, wages, and cost of materials, from the commencement of Mr. Roberts's experiments to the 31st of December, 1838; the cost of the letters patent and specifications, law and travelling expenses, and interest at five per

cent. every year on the capital employed up to the end of the pre-
ceding year. The receipts include the actual returns; interest
at five per cent. on the receipts being added yearly. The
account shows £35,988 on one side, and £29,044 on the other,
leaving a profit of £6944; against which is a loss of £10,154,
above the insurance, from the fire, according to the accom-
panying statement.

Lord BROUGHAM: The actual expenses should be taken,
but deducting the value of Mr. Roberts's time, the expenses of
taking and defending the patents; if the interest is taken off on
one side, it must also be taken off the other.

Sir F. Pollock: The receipts during the last three or four
years has been £5000 a year; that is a fair test of what the
inventor ought to have received during the whole fourteen
years. During the first seven years he got nothing, and was
under a great outlay. The invention is so useful, that though
it has had to struggle with the prejudices of the men and the
fears of the masters, £5000 a year has been received during the
last three years.

Mr. T. H. Bower, solicitor to the petitioner: I produce the
papers containing the advertisements (b), the letters patent, and
the specification. No caveat has been entered at any time.

The LORD PRESIDENT: It is the opinion of the committee
that this patent should be prolonged for the term of seven years
as prayed, partly in consequence of the ingenuity of the inven-
tion, and partly also in consequence of the peculiar character
of the resistance which has been opposed to it.

Report accordingly.

WRIGHT'S PATENT.

Cor. The Lord President; Lord Lyndhurst; Lord Brougham;
Sir H. Jenner.

This was an application by the patentee for the extension of
the term of letters patent, granted the 20th of April, 1825, to
L. W. Wright, for "certain improvements in machinery or ap-
paratus for washing, cleansing, or bleaching of linens, cottons,
and other fabrics, goods, or fibrous substances."

The petition stated, that the petitioner had been engaged
from 1821 to 1825 in experiments upon the invention, and

(b) These were the "Gazette" of the 4th, 8th, and 11th of January; the "Times," "Chronicle," and "Morning Post," of the 8th of January; and the "Manchester Guardian."

In the Privy Council.

having obtained the letters patent, was prevented by his bankruptcy, and other circumstances over which he had no control, from bringing the invention into profitable use. That his assignees, with the concurrence of the creditors, from their satisfaction at the petitioner's conduct, had re-conveyed to him the letters patent. That in 1836 the petitioner invented and obtained letters patent for certain improvements to be used with the preceding, and which, after the expenditure of considerable sums of money, would be comparatively of little value, unless employed in connexion with the preceding invention. The petition then stated various arrangements for partnerships and sale of shares in the letters patent, and expenditure in the erection of works, from which, however, no profits had as yet been derived, and that the petitioner was wholly without remuneration for his invention.

Sir F. Pollock appeared in support of the petition, and having opened the case—

The fact of the invention not having been brought into use must be explained.

The Attorney General (Sir J. Campbell) stated, that he was not aware of any objection to the extension of the term, except that the invention did not appear to have been brought into use, from which, unless it could be accounted for, the patent must be considered ineffectual.

The letters patent, specification, and papers containing the advertisements (a), were put in. The invention, which consists in bleaching and washing, by subjecting the fabrics to high pressure steam, was described to be attended with a great saving of time, labour, and expense, and to be much less injurious to the fabrics than the ordinary processes of bleaching and washing. Several witnesses were called who attributed the want of the introduction of the invention to the embarrassments of the inventor. That owing to the contracts and engagements he was under for the completion of certain pin machinery (*ante* 562), and the difficulties and disputes arising out of his partnership with various persons in his patents, he had been prevented from introducing the invention, which, consequently, never had a fair chance of success. It appeared that the invention had been used very successfully by several bleachers, and that a bleacher could practise the invention by following the specification; also that the letters patent were then wholly vested in the petitioner, and that the interest in any extension would be wholly for his benefit.

Judgment.

The LORD PRESIDENT: The committee, looking to the merit of this invention, are disposed to recommend to her Majesty to

(a) These were the "Gazette" of the 25th and 28th of December, 1838, and of the 1st of January, 1839; the "Times," "Chronicle," and "Herald," of the 25th of December; the "Man-

chester Guardian" of the 29th of December, 2d of January, and 5th of February. The petitioner resided at Manchester; the bleaching had been carried on there as well as at other places.

allow of the extension of the patent for the term of seven years, *In the Privy Council.* considering that the circumstance of its not having been brought extensively into use is explained by the evidence.

Report accordingly.

JONES'S PATENT.

Cor. Lord Brougham ; Parke, B. ; Bosanquet, J. ; Dr. Lushington.

This was an application by the assignee for an extension of July 8, 1840. the term of letters patent, granted the 10th of October, 1826, to T. Jones, for "a certain improvement or improvements in wheels for carriages" (a).

Sir F. Pollock and Godson appeared in support of the petition.

The Attorney General (Sir J. Campbell) said, that he did not intend to make any objection to the extension on the ground of any supposed want of validity, which he had reason to believe could be satisfactorily established, having been proved on a trial at law (b), but he felt it his duty to submit that there was no reasonable prospect of its being beneficial to the patentee or his assignee, in which case the public ought not to be precluded from the use of it.

Sir F. Pollock: The only way in which the public would have an immediate benefit from the invention, would be by permitting the assignee to have the further use of the patent; for if, after the loss he had sustained, he was to be driven from the trade, the invention would probably fail as far as the public were concerned, for want of that support which he alone could give.

The papers containing the advertisements were put in (c); also three deeds—the first conveying a fourth of the patent to Riddle, the second a fourth to Piper, and the third the remaining half to Riddle and Piper, the petitioners.

Mr. Brunel and other witnesses described the nature of the Evidence.

(a) See the specification, *ante* 120.

(b) In *Jones v. Pearce*, *ante* 122. The grounds of the rule nisi for a new trial in that case do not appear in that report, but in the course of these proceedings they were stated to be—first, no sufficient evidence of infringement, the defendant not having sold any wheel, and having one only in his possession; secondly, misdirection, the jury having been directed that an abortive attempt to bring a principle into use did not prevent another

from taking out a patent for an invention on the same principle, and bringing it into successful use.

(c) The "Gazette" of the 24th and 28th of April, and 1st of May; the "Times," "Chronicle," and "Standard," of the 28th of April, containing the advertisements of the notice of application; and the "Gazette" of July 3d, the "Times" and "Chronicle" of July 2d, containing the notice of the day appointed for the hearing.

*In the Privy
Council.*

invention, and explained the superiority of iron wheels made according to the patent over other iron or wooden wheels: that the wheels of a carriage intended to move great weights—as, large blocks of stone—if of wood, must be nearly solid; these were extremely liable to get out of order, and shrink, and be unfit for use. The patent wheels would be much lighter than iron wheels made on the old principle, that is, supporting the weight from beneath and not from above by suspension. Considerable difficulty was experienced at first in making the tire of the wheels. The machinery had been repeatedly altered, and great expense incurred from that source, and in experiments for reducing the cost of the wheels. The great difficulty was with the tire, which did not attain its present state of perfection till within about six years. There had been no departure from the specification.

The concern on the whole had been a losing one; the total amount of loss, exclusive of interest on the capital, during the whole term, was £15,389—and with interest, £28,474; during the last seven years the loss has been £15,505. This loss has been principally owing to the cost of machinery—the capital expended in obtaining machinery for the different parts of the wheel; £7284 had been expended in machinery patterns, tools, implements, forges, and premises. About 2500 pairs of wheels had been made. The relative cost of a pair of patent iron and wooden wheels of the same size is £11 and £7; but the expense of keeping up the latter is greater than the former; the latter will wear out in about two years, whereas the former will last four years, and when worn out several parts may be used again. The prejudice against the wheels among the makers of carts and carriages is very strong. So much difficulty had been experienced in getting the wheels applied to carriages, that the petitioners had recently taken to making the bodies as well as wheels of carriages. During the last two years considerable quantities had been exported to the West Indies and other places.

The patentee was examined as to his having any knowledge of Mr. Strutt's invention. He stated that he had never heard of any thing of the kind until the trial for the infringement of his patent—the mode pointed out in the specification is now pursued in making the wheels; the various deviations were attempted for the purpose of saving expense, but the parties had returned to the precise mode pointed out in the specification—the difficulty of rolling the wrought iron rim led to the trial of cast iron, but that proved too heavy; the present rim is of better dimensions than those made at first, and of a better kind of iron—there is nothing in the present wheel which is not described in the specification, except some improvement in the nave for the purpose of keeping in the oil.

The Attorney General said, that he should not dispute that the present was to be considered a valid patent, but he submitted that there was not a sufficient case made out to call for an extension of the term, there appearing no reasonable ground to suppose that a benefit would accrue to the petitioner which would counterbalance the loss to the public from the continuance of the monopoly.

Sir F. Pollock: It has been made out that a very considerable part of the loss has arisen from the necessity of the patentees making their own machinery. The demand was not such as to induce the manufacturers to comply with their wishes, and they were obliged to make their own experiments, and get premises, and erect a forge for themselves. The proprietors of the patent, perceiving the great expense, and expecting that, by diminishing the cost or by having a more perfect article to sell, they would be more successful, went on making experiments, but eventually returned to the specification, and expect that by an extension of the term they shall be enabled to retrieve a part of their loss.

Lord BROUGHAM: It is perfectly true, as has been stated, *Judgment.* not only upon this but upon former occasions, that these applications are any thing rather than matters of course. This is a very extraordinary jurisdiction which has been conferred on the judicial committee by the legislature, and is to be exercised only on the most special grounds alleged and proved in reference to each case. Their lordships are of opinion, that in this case the grounds are most decisive, and have been proved in a most satisfactory manner. From the nature of the invention it appears to be hardly possible that, within the ordinary period of time, ten, twelve, or fourteen years, a remuneration could be expected. In this case it is clearly proved, not only that there was no remuneration, but that every year a very heavy loss has been sustained. Under these circumstances their lordships are of opinion, that unless they give the whole term of seven years, there is no reasonable chance of that loss being counteracted by the profit to the parties now in possession of the patent. Their lordships are therefore of opinion, that in the circumstances of the case, and regard being had to the merits of the invention and its usefulness to the public, the whole period of seven years' extension should be granted.

The insufficiency of the usual term to afford remuneration, regard being had to the nature of the invention, a ground for the extension of the term.

Report accordingly (d).

(d) The new letters patent were granted accordingly to G. Riddle and T. Piper for seven years.

WALTON'S PATENT.

Title. Letters patent 27th of March, 1834, to James Walton, for "certain improvements in cards for carding wool, cotton, silk, and other fibrous substances."

Specification. I, the said James Walton, do hereby declare the nature of my said invention to consist in the application and adaptation of the material known by the name of caoutchouc or India rubber, as a substitute for the fillets or sheets of leather which are commonly used in the construction of ordinary cards, and thus giving a superior elasticity and durability to such cards. And I do hereby describe the manner in which my said invention is to be performed by the following statement thereof, reference being had to the drawing annexed, and to the figures and letters marked thereon, that is to say,—Figure 2 represents an elevation of a card constructed with an India rubber or caoutchouc foundation or fillet as shown at *a a*, in which the wire dents, or teeth, are inserted, and the regularity of distance and uniformity of the dents or teeth of the cards are found to be better preserved by a piece of linen, commonly called brown holland, or other the like cloth, well glazed and cemented on to the back of the caoutchouc or India rubber, as shown by a red line at *b b*. The cloth *b b* when fastened to the caoutchouc continues to keep the dents or teeth more firmly in their places when in use, and the foundation or fillets being thereby made much stiffer, the action of the dents or teeth is less uncertain in their elastic movements. The cloth so cemented to the Indian rubber or caoutchouc is to be affixed to the cylinder or board in the ordinary carding engine by nails, but if it is to be affixed by cementing, then it is desirable to remove the cloth, which in this case should only be slightly attached to the India rubber, and this will be found the best mode of applying the cards thereon. When the cards are constructed by hand, it is essential that the cloth *b b* should be first pricked by an engine (as is the practice when leather is used) to regulate the distance and required uniformity of the dents or teeth, and in cases where cloth is introduced between two layers of caoutchouc or India rubber as represented by the red line at figure 3, the India rubber or caoutchouc is pricked or pierced in a similar manner to enable the card maker to force the dents or teeth through it without bending or injuring their form or shape, but the pricking of the holes may be effected by the patent machinery of Mr. Dyer, of Manchester, now in use for that purpose. It may be as well here to observe, that when I mention cement in this specification I always allude to what is now generally called India rubber cement, and which as it has now become an article of general

sale, and may be bought by that name, I do not think it necessary further to describe the same; but as the machines for cutting India rubber are not generally known, and as I prefer caoutchouc or India rubber in the state it is imported for my purpose, I will now describe the means which I use for cutting the caoutchouc or India rubber into layers from the solid blocks as imported, and which I recommend in preference to what is termed manufactured India rubber, or India rubber first dissolved by some solvent, and then cast in moulds to form blocks, the former being most suitable for the purpose. I first cut the block lengthwise into suitable sizes, according to the nature of the cards to be manufactured, and then place the flat or regular surface of the block on a metallic surface, which moves freely between two guides, the exact thickness of the sheet of caoutchouc or India rubber which it is designed to cut off, and it will be evident that, by varying the thickness of the metallic surface, a proper thickness of caoutchouc will be cut off,—a sharp knife kept occasionally wet with water, and supported on guides, is then pressed with a sawing action against the India rubber or caoutchouc by the operator at the same time that he forces the India rubber or caoutchouc forwards between the guides by turning the roller *n*, and thus severs or cuts off a piece of the exact thickness required. The pieces thus cut off may be joined together to form fillets or sheets according to the nature of the card intended to be made, and when the teeth or dents are set therein, may be nailed to the board in the usual manner, or cemented on it. * * * * * (a)

The advantages presented by cards of this construction consist in the superior elasticity of the caoutchouc or India rubber, allowing the dents or teeth to be pressed down without material injury to the card, at the same time the teeth or dents are sufficiently firm to perform the carding or raising operation, and even though the dents or teeth should be pressed down to the surface of the caoutchouc or India rubber of the card, they would not be bent, but immediately recover their former position by the elasticity of that substance. Again, in substituting cards of this construction in the place of teasels or ordinary wire cards, for the purpose of raising the pile of woollen and other cloths, I am enabled to work them wet, without any material variation of the elasticity of the caoutchouc or India rubber, which remains more uniform in its action, and effects the operation of raising the pile of woollen and other cloths more regu-

(a) The specification having described the manner in which the invention is to be performed, proceeds to describe further, by reference to the drawing, the machinery and apparatus for cutting the India rubber and pointing the teeth, but these formed no part of the invention. The specifica-

tion then proceeds as in the text. The reader will find a most elaborate and beautiful plate of the drawings annexed to the specification, and of the ordinary carding engine, in Mr. Scott's report of the proceedings on the motion for a new trial. 4 Scott's New Reports, 96.

Specification. larly, and without that variation experienced in the teasel in its transition from a dry state to a state of moisture; and by varying the thickness of the caoutchouc or India rubber I am enabled to gain a delicacy of action in the card equal to raise a nap or plush on fine silk fabrics, as well as on the ordinary woollen cloths finished by this process; and in all cases when the cards are worn out the caoutchouc or India rubber is worth nearer its original value than other material heretofore used for a similar purpose. The thickness of caoutchouc I usually employ is about one-eighth of an inch in thickness for raising purposes, but this must vary according to the length of wire of which the teeth are formed and the quantity of elasticity required, the thicker the India rubber and the shorter the wire the greater will be the stiffness.

Having described the nature of my invention of improvements in cards for carding wool, cotton, silk, and other fibrous substances, and for raising the pile of woollen and other cloths, together with the manner in which the same is to be performed and carried into effect, I hereby declare that I do not claim any particular method or means of setting or placing the dents or teeth of the cards. Nor do I claim the means herein described for pointing the cards, but have described the various parts as the means I have pursued, and find to answer, in effecting my improvements in cards. And I do hereby confine my claim of invention to the application and adaptation of caoutchouc or India rubber as the fillet or sheet, or medium in which the dents or teeth are to be set together in the manufacture of cards, and thereby obtaining a superior elasticity and durability to cards as above described (*b*).

(*b*) The following letters patent and inventions are referred to in connexion with the preceding in the subsequent legal proceedings on the above patent.

Letters patent, 17th June, 1823, to Charles Macintosh, for "a process and manufacture whereby the texture of hemp, flax, wool, cotton, and silk, and also leather, paper, and other substances, may be rendered impervious to water and air."

Specification.—Caoutchouc is to be cut into thin shreds or parings, and dissolved in coal oil; the fabrics to be rendered water or air proof are to be covered on one side with this solution, and the two sides so covered pressed together, and the oil evaporated by heat.

Letters patent, 29th November, 1824, to Thomas Hancock, for "a method of making or manufacturing an article which may be in many instances substituted for leather, and be applied to various other useful purposes."

Specification.—"The nature of my invention consists in combining together the fabric or filaments of various matters, such as flax, hemp, cotton, wool, hair, or other matters of the like flexible

nature, by saturating them in connexion or in contact with each other with a liquid, which, when partially evaporated, becomes a flexible and adhesive substance, such fibres being previously arranged or disposed as to shape and dimension, according to the purposes to which they are afterwards to be applied, so as to produce an uniform combination of the fibres and the substance, or in such a manner as that every individual fibre may be so surrounded with the said substance, as that the whole of the fibres composing the mass, when united by the substance, may form a compound or article somewhat resembling leather, and which said compound, substance, or article, may in many cases be substituted for leather, more or less advantageously; namely—for harness, straps, belts, accoutrements, boots, shoes, flexible pipes, air-tight bags, and a variety of other things which have heretofore been made of leather; and the said substance or article may also be applied to various other useful purposes, such as parts of wearing apparel which it may be desirable to have waterproof, and which commonly are made of other substances than leather. The article may also be applied for the roofs of verandas, awnings, tent coverings, and to other similar purposes."

ification then describes the mode of ring this new article; the kind of material selected according to the purposes to be applied. The liquid employed is to be the juice of certain trees from America, and when inspissated closely resembles and believed to be the same as caoutchouc rubber.

patent, 15th March, 1825, to Thomas for "a new or improved manufacture, in many instances be used as a substitute, and otherwise."

Specification.—"My said invention consists in uniting and combining various fibrous materials, in their manufactured and unmanufactured state, with a composition which leaves to sufficient flexibility, and at the same time consolidates them into one mass, increasing their strength and durability, by which these means a manufacture may be in many instances substituted for leather, and also to other useful purposes, such as the roofs of verandas, corn and packing cloths and tarpaulins. The substances I employ in this manufacture are cotton, hair, silk, flax, hemp, carded, hackled, and combined with the same woven and manufactured.

The same process is applicable to all the materials, it will be necessary to describe the process in one case only, as any variation made in arranging the different substances is at the discretion of the operator.

A piece of cotton cloth of any convenient size is strain it on a board, and spread over it tulle, or other convenient instrument, a layer of one of the compounds to be herein described. I then spread on or over the cloth a layer of carded cotton, somewhat the article known by the name of wadding over this again another piece of cloth prepared as the first. I then submit the cloth to sufficient pressure between boards or metal, either passing them through rollers or otherwise, to force the compound through the layer of carded cotton. I then remove it from the boards or I leave it to dry either in the open air or in a room, heated to eighty or ninety degrees of temperature, and proceed to make the same manner. When I perceive the materials are nearly or quite dry, I again submit the cloth to the press, or if one of these strata is not to make up the thickness I require, I lay three, four or more together, spreading the compound on the surfaces again, if necessary increasing the pressure. After they have been in the press some hours, they may be exposed to the air or return to the press to complete the drying, and if necessary again. When I wish to have the cloth for either or both surfaces, I care-rate, at the end of two or more pressings, the last layer or layers of cloth from the cloth it soon after I take it out of the press (if it will then separate), and proceed as herein described. In this manner I introduce into the manufacture hair, wool, silk, hemp, and or any mixture of these fibrous substances, or any or all of them mixed with chopped

hemp or tow, and carded together, or I heckle or comb hemp or flax and lay the fibres parallel with each other, and combine any intermixture of these different materials with the different kinds of manufactured wool, silk, linen, cotton and the like, according to the purpose to which the article is to be applied, or as economy may dictate. For soles of shoes and boots I prefer wool, hair, and cotton, in about equal proportions; for hose pipes, pails and accoutrements, chopped hemp, tow and cotton. I prefer the woven materials to be made of wool or cotton, and these of an open, loose and coarse texture, excepting where it is intended for a finer surface; in such cases I choose the fabric of a finer quality. If the article is required to have a smooth surface, I produce it by using polished metal plates the last time the article is pressed. I make the compound or compounds with which I unite or combine the said substances as follows.—No. 1: I take two pounds of caoutchouc, dissolved in one gallon of equal parts of oil of turpentine and highly rectified coal tar oil, six ounces of black resin, two pounds of strong glue size, and one pound of ochre, powdered pumice or whiting, and mix the whole together; or, No. 2: one pound and a half of caoutchouc, dissolved as before stated, one pound of strong glue size; I melt and mix the resin and size in a water or steam bath, and add the other ingredients, stirring the whole until it is mixed throughout. The solution of the caoutchouc is expedited by a water or steam bath, and the undissolved portions may be separated by straining it through a fine wire or other sieve. The mixture, No. 1, is applicable to articles where stiffness and cheapness are required. No. 2 is preferable when pliancy and strength are more required. But I think it proper here to state, that the proportions above mentioned may be varied according to the different applications of the article to be manufactured. If varied qualities of stiffness or cheapness should be desired, the proportions of size and whiting may be increased till they make up one-third of the mass. If flexibility be required, the quantity of dissolved caoutchouc in the compound, No. 2, may be increased, and especially where great strength and pliancy are required. This last is also preferable for articles that are to be much exposed to the weather."

Letters patent, 20th April, 1839, to John Potter and William Horsfall, for "an improvement or improvements in cards for carding various fibrous substances, part of which improvements may be used as a substitute for leather."

Specification.—"Our invention of, &c., consists in the manufacture of a new material or substance for receiving the wire teeth which have hitherto for the most part been set in leather, and we shall now proceed to describe the manner in which the same is to be performed and carried into effect. In the first place, we provide a woven fabric of a peculiar construction, which we manufacture as follows:—we make the warp or chain of a material possessed of the greatest possible strength and the least elasticity, such as yarn or thread made of flax, hemp or cotton, which yarn or thread we prefer to be made of two or three folds or strands doubled and twisted together. The warp being in the loom, it is to be made into cloth by being shot or wefted into woollen weft, that is, with yarn or thread composed of sheep's wool.

"The cloth being woven it is next to be cleansed or scoured, so as to free it from any oil or other impurities, and milled, by which latter process the fabric is brought to the requisite thickness or substance by being milled up in width, or in the direction of the thread or yarn of wool.

"By this means we obtain a cloth capable of resisting a very considerable strain or tension in the direction of the warp, whilst the body of the cloth itself remains exceedingly soft and porous. We find that for most kind of cards, cloth milled up to such a thickness, as that one yard in length by twenty-seven inches in width shall weigh from fourteen to sixteen ounces avoirdupois, is the most suitable, though it will be evident that these proportions may be varied as circumstances may require.

"The middle qualities of sheep's wool we consider most suitable for making this description of the cloth, being preferable to either the finest or coarsest sorts. To persons engaged in the woollen manufacture these instructions will be sufficient to enable them to make the cloth. If the cards to be manufactured are intended for fillet cards, the cloth is next to be torn up lengthwise of the piece into strips of a suitable width; but if sheet cards are intended, the cloth is to be cut crosswise, or in the direction of the weft, making the usual allowance as when using leather for the space on each side, for the purpose of affixing the wire cards to the cylinder of the carding engine; a sufficient number of these short pieces of cloth are to be sown together at the ends, so as to form a fillet or belt, by which the subsequent operations will be facilitated.

"The cloth thus prepared is passed through a solution of India rubber, known to the trade as India rubber varnish or cement, and in the passing of the fabric a quantity of the varnish will adhere to the surface, and the fabric in this state is wound tightly up and allowed to stand a few minutes, then is unrolled and passed a second time through the varnish, by which means a still further proportion of the India rubber varnish will adhere to the cloth, and being again tightly wound up, it is to remain a sufficient length of time to allow the varnish to penetrate or become absorbed by the cloth.

"It is usually necessary to pass the cloth a third time through the varnish, after which we generally find that the cloth is saturated, and being again left as before in the coil, the whole mass becomes equally and completely penetrated by the varnish. Its being in this state may be known by the cloth assuming a semi-transparent appearance. The coil is then unwound and exposed to the atmosphere, so as to allow the varnish to dry, after which it is to be drawn once or twice through the varnish, by which the cloth will imbibe a further portion of it, so as to fill up the pores or interstices which the operation of drying has left open.

"If this process has been properly conducted the fabric will now consist of nearly one-third caoutchouc or India rubber, and two-thirds cloth, by weight, but these quantities may be varied. The India rubber or caoutchouc varnish or cement, being an article that may be freely purchased, and the modes of preparation being well known, it is unnecessary further to particularize it. The preparation of our improved material being thus far completed, we next cover it on each side with a mixture of ochre and weak size, which by destroying the adhesiveness of the India rubber, facili-

tates the subsequent operation of inserting the wire teeth, and also gives to the fabric more of the appearance of leather.

"When this coating is dry, the compound fabric produced by the operation above specified is to be passed between a pair of weighty rollers, or otherwise submitted to a considerable pressure, by which means the fabric becomes firmer and more compact, and, in short, becomes possessed of the qualities, which persons acquainted with the cardmaking business know to be so highly desirable, namely, that of being extremely elastic in the direction of the thickness of the fabric, so as to impart as it were the elasticity to the wire teeth when set, while in the direction of its length or warp it is nearly non-elastic. In this state it is ready to receive the wire which is to form the cards, for which purpose we prefer using the cardmaking machinery, and the process being exactly the same as that now in use for making leather cards, simply substituting the fabric or cloth above described in place of leather, it need not be described here.

"Though the process above described is the one we generally prefer for carrying out our invention, we sometimes vary the process in the following manner, which may in some cases be considered preferable.

"Instead of the fabric above described, composed of warp of flax, hemp or cotton, and of woollen weft, we use in this case a fabric composed entirely of sheep's wool, and milled to such an extent that one yard in length by twenty-seven inches in width shall weigh ten or twelve ounces avoirdupois, or thereabouts; this cloth is to be saturated with the caoutchouc in the manner already described, and afterwards cemented with the India rubber varnish or cement to a back of strong cloth, composed, like the warp in the former case, of flax, hemp or cotton, for which it is intended as a substitute, in order to prevent longitudinal stretching.

"The exposed surface of the cloth being covered with a coating of ochre and glue size, and afterwards the whole fabric being submitted to considerable pressure from the action of rollers, or otherwise, the process is complete, and the fabric is now ready to receive the wire.

"Though we find the process above described perfectly adequate to the purpose of impregnating the woven fabric with caoutchouc, yet as the same is somewhat slow, we generally employ certain machinery or apparatus for producing the same result in a more economical manner, which we will now describe."

"Having described the nature of our invention and shown how it is to be carried into effect, we would have it understood that we do not claim any of the machinery, apparatus, or means, herein described, which are incident to the carrying out our invention, but we declare that our invention consists—

"First, of the mode of producing a cloth or fabric, by combining sheep's wool and caoutchouc together with a third material, which third material may be either flax, hemp, or cotton, or a mixture of the same, the fabric being fulled or milled to a proper thickness, before applying the India rubber, such fabric being peculiarly adapted to the making of wire cards, and also as a substitute for leather for other purposes.

"Secondly, we claim as our invention, the application and combination of the woollen cloth,

fulled to a proper thickness, and after-
 mated with caoutchouc, and cemented
 of strong cloth, composed of flax, hemp,
 as a substitute for leather in the making
 rds.

lastly, we would have it understood,
 are aware that various descriptions of
 ive been coated with India rubber, and
 nay have, been used as a substitute for
 ad have, or may have, been employed in
 ire cards; we do not, therefore, claim
 g fabrics in general with India rubber,
 he peculiar fabric above described."

lowing passage from the 21st vol. of the
 of the Royal Institution,' published in
 relied on in the subsequent proceedings
Watts v. Walton, to repeal the above pa-
 e defendant:—

y, Feb. 3rd.—The members held their
 ly meeting at half-past eight o'clock.
 ecture room were exhibited a great
 'specimens of caoutchouc or elastic gum
 states, from the uncoagulated crude sap
 e to that of perfect purity and aggrega-
 also as united to various fabrics, pro-
 variety of strong, flexible, and perfectly
 ht materials, some being of extreme
 and others of great thickness and

These were furnished by Mr. Thomas
 , who has had peculiar opportunities of
 ing with this substance, and possesses

the knowledge of a process by which it can be
 rendered fluid, and yet retain the power of hard-
 ening and assuming its elastic state again. Mr.
 Faraday explained the nature of caoutchouc, and
 gave the results of an analysis of the unchanged
 sap. The various specimens of cotton, silk,
 linen, leather, felt, woollen, &c., which were
 upon the table, had been rendered water-tight by
 the intervention of a layer of caoutchouc between
 two layers of the fabric, as, for instance, cotton or
 silk, and the adhesion was so perfect that the
 substance seemed but as one web. The perfect
 retention of water by these substances was shown
 by a calico bag, into which a quart of water had
 been introduced and the opening closed up; not
 a drop or particle of moisture could be perceived
 on the exterior, though the bag was much
 handled and pressed.

"When several folds of calico, linen, or canvas,
 were cemented together by this substance, a
 material was produced answering many of the
 purposes of leather, and surpassing it in value in
 numerous applications. Its use in the construc-
 tion of the connecting bands for machinery and
 card filets has been tried and approved of.

"In consequence of the manner in which the
 caoutchouc is applied, no limit occurs as to the
 form or size, or delicacy or strength, of the water-
 tight vessels or things which may be made; it is
 equally applicable to the cloak and the caravan
 cover, to the most ornamented flower vase, and
 the strongest water bucket." *Ibid.* 131.

WALTON v. POTTER & HORSFALL.

Cor. Sir N. C. Tindal, C.J.

Hil. Vac., 1841.

was an action for an infringement of the above patent, *Declaration.*

the declaration, after the usual averments, assigned as a
 , that the defendants, without the leave of the plaintiff,
 und sold and exposed to sale cards in imitation of the said
 ion. The defendants, after setting out the letters patent,
 d—1. Not guilty. 2. That the plaintiff was not the true
 st inventor of the said invention. 3. That the said in-
 n was not at the time of making the said letters patent a
 vention as to the public use and exercise thereof within
 id. 4. Setting out the specification, and averring that
 d invention was unfitted and useless for the construction
 et cards and top cards as described therein. 5. That
 untiff did not in and by the said specification particularly
 e and ascertain the nature of the said invention, and in
 manner the same was to be performed. 6. Leave and

notice of objections was an echo of the pleas, and also *Notice of objec-*
 as specific objections, the grant of the two letters patent *tions.*
 , 24th of November, 1824, and the 15th of March, 1825,

Objections.

to Thomas Hancock, for the invention of a substitute for leather, and alleged that large quantities of such artificial leather had been made into and used as cards before the date of the plaintiff's patent. The notice also stated, that the invention was not a new manufacture, that the mode of using the cloth was not sufficiently described, and calculated to mislead, and that the invention was useless as to some of the purposes named.

Sir T. *Wilde*, Sergt., *Bompas*, Sergt., and *Addison*, were counsel for the plaintiffs; Sir W. *Follett*, S.G., *Channell*, Sergt., and *Cowling*, for the defendants. The nature of the evidence will sufficiently appear from the summing up of the learned judge.

The summing up.

Sir N. C. TINDAL, C.J.: Gentlemen of the jury: This is an action brought by Mr. Walton against Messrs. Potter and Horsfall, for the invasion of a patent, which was granted to the plaintiff for certain improvements in cards for carding wool, cotton, silks, and other fibrous substances, and for raising the pile of woollen and other cloths, and which patent was granted to the plaintiff on the 27th of March, 1834; and in answer to the charge which is made by the plaintiff against the defendants, several pleas have been put on the record. There is one plea upon which no evidence at all has been given before you, namely, that whatever the defendants did, they did by the leave and license of the plaintiff—therefore, you may leave that out of your consideration, and find your verdict on the last plea at once for the plaintiff.

The first plea the defendants have put upon the record is, that they are not guilty, and by that they mean to say, as indeed the course of the evidence has sufficiently shown, that they have not infringed the patent which has been granted to the plaintiff. It is not so common an occurrence to dispute the infringement of the patent as its validity. In the causes which ordinarily come before us, the question is, whether the patent is a good one or not; but here there is a double inquiry to be made, and the defendants have a full right to avail themselves of it. It is therefore upon the present occasion a most important part of this inquiry to ascertain, whether the plaintiff's patent has been infringed or not.

The question of infringement peculiarly for the jury, who must say, whether any advantage has been taken of the invention of the plaintiff.

Now, according to the general rule upon this subject, that is a mere question of fact, and peculiarly for the consideration of the jury, and it will be for you to say under the circumstances that have been brought in review before you, whether that which has been done by the defendants amounts to such an infringement or not. Where a party has obtained a patent for a new invention, or a discovery he has made by his own ingenuity, it is not in the power of any other person, simply by varying in form or in immaterial circumstances the nature or subject-

matter of that discovery, to obtain either a patent for it himself A. D. 1841.

to use it without the leave of the patentee, because that would be in effect and in substance an invasion of the right; and therefore, what you have to look at upon the present occasion, is not simply whether in form or in circumstances, that may be more or less immaterial, that which has been done by the defendants varies from the specification of the plaintiff's patent, but to see whether in reality, in substance, and in effect, the defendants have availed themselves of the plaintiff's invention in order to make that fabric, or to make that article which they have sold in the way of their trade; whether, in order to make that, they have availed themselves of the invention of the plaintiff. The course which the evidence has taken has made it not an immaterial, but, on the contrary, a very necessary inquiry for you upon this first head of investigation, to determine whether the defendants' patent, which they have taken out, is in effect borrowed from the plaintiff's or not, because there can be no doubt whatever that all the defendants have done they have endeavoured to clothe themselves with the right of doing by taking out the subsequent patent of 1839. The only evidence of infringement we have had before us is the purchase at the manufactory of the defendants of that little piece of card which was marked with the initials S. G., and there can be no doubt but that that fabric, which was so produced in evidence before us, is made upon the plan and according to the specification of their own patent, and therefore it will be not immaterial to call to your attention upon this first head of inquiry the specification of the plaintiff's, and next that of the defendants' patent, in order that we may compare them together, and see whether there really is that variation in substance so as to give the denomination of a new discovery to what the defendants have done, or whether they are not following out the invention of the plaintiff, with some variation in the description, which may not allow it the name of a new discovery.

Or, whether there is such a variation in substance as to constitute a new discovery.

Now the plaintiff in his specification says, "I declare the nature of my invention to consist in the application and adaptation of the material known by the name of caoutchouc or India rubber, as a substitute for the fillets or sheets of leather, which are commonly used in the construction of ordinary cards, and thus giving a superior elasticity and durability to such cards." He therefore confines the description of his invention to the application and adaptation of India rubber in lieu of leather to the cards; that is the substantial part of the invention for which he claims his patent. Then he goes on to describe the manner in which this invention is to be performed, and the description which he gives is this—he says, "the regularity of distance and uniformity of the dents or teeth of the cards are found to be better preserved by a piece of linen, commonly called brown

Sir N. C. Tindal, C.J., to the jury. holland, or other the like cloth, well glazed and cemented on to the back of the caoutchouc or India rubber, as shown by a red line," which is mentioned in the plan; and then he goes on to tell you, that "the cloth when fastened to the caoutchouc continues to keep the dents or teeth more firmly in their places when in use, and the foundation or fillet being thereby made much stiffer, the action of the dents or teeth is less uncertain in their elastic movements." And he says, "the cloth so cemented to the India rubber or caoutchouc, is to be affixed to the cylinder or board in the ordinary carding engine by nails; but if it is to be affixed by cementing them, it is desirable to remove the cloth, which in this case should only be slightly attached to the India rubber, and this will be found the best mode of applying the cards thereon." Then a little after, in a subsequent part, he talks about the mode in which he requires the India rubber to be used, and what he says is, "it may be as well here to observe, that when I mention cement in this specification I always allude to what is now generally called India rubber cement, and which, as it has now become an article of general sale, and may be bought by that name, I do not think it necessary further to describe the same; but as the machines for cutting India rubber are not generally known, and as I prefer caoutchouc or India rubber in the state it is imported for my purpose, I will now describe the means which I use for cutting the caoutchouc or India rubber." That it is unnecessary to trouble you with, the only object is to show that he used the India rubber in the state in which it is imported, by cutting a thin slice of it, and affixing it to this fabric of brown holland, or other such like cloth, and carrying the dents or teeth through the cloth from the outside, so as to form the subject of the patent, which is the card at the end; he goes on further to say, having described the nature of his invention for this card, "I do not claim any particular method or means of setting or placing the dents or teeth of the cards, nor do I claim the means herein described for pricking the cards, but have described the various parts as the means I have pursued and find to answer in effecting my improvements in cards. And I do hereby confine my claim of invention to the application and adaptation of caoutchouc or India rubber as the fillet or sheet, or medium in which the dents or teeth are to be set together in the manufacture of cards, and thereby obtaining a superior elasticity and durability to cards as above described;" evidently therefore, in the beginning, the middle, and the end of it, limiting the patent which he has solicited and obtained to the adaptation of India rubber, coupled with the fillets of cloth which he puts at the back of it, giving elasticity and durability to the card.

This patent was taken out in the year 1834, and it appears

that in the year 1837, the defendants for the first time purchased some of these cards; and it appears also, upon evidence that was given by the defendants themselves in the course of this inquiry, that shortly after the time when Mr. Walton's cards had been purchased by the defendants, experiments began to be made by one of the defendants at their manufactory; and some time after that, namely, in the month of April, 1839, a patent was granted to the defendants for an improvement in cards for carding various fibrous substances. A.D. 1841.

Now what you have to say is, as I before stated, whether you are satisfied that the card that was produced before you in evidence, and which you may assume I think upon the evidence to have been made in accordance with the specification, is a specious variation in form only, an ingenious alteration in the mode of adaptation, or whether it is really and substantially a new discovery on the part of the defendants. In the one case it would be an infringement of the patent, in the other it would not. Now the account they give in their specification is, "we do declare the nature of our invention of an improvement or improvements in cards for carding various fibrous substances, part of which improvements may be used as a substitute for leather, to consist in the manufacture of a new material or substance for receiving the wire teeth, which have hitherto for the most part been set in leather, and we shall now proceed to describe the manner in which the same is to be performed and carried into effect." Now they make it to consist of two parts—first, in the preparation of the cloth in the way I shall mention to you, and then saturating the cloth with dissolved India rubber. First, they say, "In the first place we provide a woven fabric of a peculiar construction, which we manufacture as follows. We make the warp or chain of a material possessed of the greatest possible strength, and the least elasticity, such as yarn or thread, made of flax, hemp, or cotton, which yarn or thread we prefer to be made of two or three folds or strands doubled and twisted together, the warp being in the loom, it is to be made into cloth by being shot or wefted with woollen weft, that is, with yarn or thread composed of sheep's wool. The cloth being woven, it is next to be cleansed or scoured, so as to free it from any oil or other impurities, and milled, by which latter process the fabric is brought to the requisite thickness or substance, by being milled up in width, or in the direction of the thread or yarn of wool. By this means we obtain a cloth capable of resisting a very considerable strain or tension in the direction of the warp, whilst the body of the cloth itself remains exceedingly soft and porous: we find that, for most kinds of cards, cloth milled up to such a thickness as that one yard in length by twenty-seven inches in width shall weigh from fourteen to sixteen ounces avoirdupois, is the most suit-

A specious variation in form or ingenious alteration in the mode of adaptation, an infringement of the patent.

Sir N.C.Tindal,
C.J., to the jury.

able, though it will be evident that these proportions may be varied, as circumstances may require." Then, having got this cloth, this is what they proceed to do with it. "The cloth thus prepared is passed through a solution of India rubber, known to the trade as India rubber varnish or cement, and in the passing of the fabric a quantity of the varnish will adhere to the surfaces, and the fabric in this state is wound tightly up and allowed to stand a few minutes, then is unrolled and passed a second time through the varnish, by which means a still further portion of the India rubber varnish will adhere to the cloth, and being again tightly wound up, it is to remain a sufficient length of time to allow the varnish to penetrate or become absorbed by the cloth. It is usually necessary to pass the cloth a third time through the varnish, after which we generally find that the cloth is saturated, and being again left as before in the coil, the whole mass becomes equally and completely penetrated by the varnish. Its being in this state may be known by the cloth assuming a semi-transparent appearance. The coil of cloth is then unwound and exposed to the atmosphere, so as to allow the varnish to dry, after which it is to be drawn once or twice through the varnish, by which the cloth will imbibe a further portion of it, so as to fill up the pores or interstices which the operation of drying has left open. If this process has been properly conducted, the fabric will now consist of nearly one-third caoutchouc or India rubber and two-thirds cloth, by weight, but these quantities may be varied. The India rubber or caoutchouc varnish or cement being an article that may be freely purchased, and the modes of preparation being well known, it is unnecessary further to particularize it. The preparation of our improved material being thus far completed, we next cover it on each side with a mixture of ochre and weak size, which by destroying the adhesiveness of the India rubber, facilitates the subsequent operation of inserting the wire teeth, and also gives to the fabric more of the appearance of leather." That, in substance, is the description which they give, concluding by saying—"Though we find the process above described perfectly adequate to the purpose of impregnating the woven fabric with caoutchouc, yet as the same is somewhat slow, we generally employ certain machinery or apparatus for producing the same result in a more economical manner, which we will now describe." Therefore, the principle of the discovery for which they obtain their patent, they profess to be, the manufacturing of cloth of a particular fabric, and the saturating every fibre of this cloth with the dissolved caoutchouc or India rubber, through which they afterwards insert or force the dents or teeth.

There may be
many patents
for the same

Now there can be no doubt whatever that, although one man has obtained a patent for a given object, there are many

modes still open for other men of ingenuity to obtain a patent for the same object; there may be many roads leading to one place, and if a man has, by dint of his own genius and discovery after a patent has been obtained, been able to give to the public, without reference to the former one, or borrowing from the former one, a new and superior mode of arriving at the same end, there can be no objection to his taking out a patent for that purpose. But he has no right whatever to take, if I may so say, a leaf out of his neighbour's book, for he must be contented to rest upon his own skill and labour for the discovery, and he must not avail himself of that which had before been granted exclusively to another; and therefore the question again comes round to this—whether you are of opinion that the subject-matter of this second patent is perfectly distinct from the former, or whether it is virtually bottomed upon the former, varying only in certain circumstances, which are not material to the principle and substance of the invention.

object, provided the subsequent invention rest upon the skill of the inventor, and have been made without reference to or being borrowed from the former invention.

Upon this part of the inquiry there have been various witnesses called on both sides, and you will judge of the value of what they have stated according to your memory, if it serves you for the purpose, and afterwards, according to my notes, if it becomes necessary, by weighing against each other certain contradictory testimonies, which cannot well be reconciled. On the part of the plaintiff, there is the evidence of Mr. Brande, Mr. Daniell, Mr. Edward Cowper, and Mr. Carpmael—all of them asserting, and the two gentlemen who were skilled in chemistry giving their reasons for it—that in their opinion, according to the best of their judgment, the discovery so called by the defendants, is really not in any material circumstance different from that of the plaintiff's, and that it is really bottomed upon the same principle. On the other hand, you have the evidence of Mr. Farey, Dr. Ure, and Mr. John Thomas Cooper, who have given their testimony to it to-day to a contrary effect; Mr. Farey said, that in his judgment and opinion, there is a perfect dissimilarity between the one and the other. You must weigh one against the other; the value of their respective testimonies will much depend, not only upon the reasons they assign for the diversity of their judgment, but a good deal also upon the manner in which they gave their testimony, and approved themselves as witnesses before you.

That then is the first point. You will have first to say—has the patent been infringed or not? Then comes the second inquiry, in which the defendants allege that the plaintiff is not the first and true inventor of the discovery; and they then go on to say, thirdly, what for the purposes of this cause will be very much connected with the second plea, viz. that the invention was not new in England, but that it was publicly in

Sir N.C. Tindal, use at the time the patent was granted (c). You are quite aware, C.J., to the jury. gentlemen, the granting of patents is limited by a statute so early as the time of James the First, and patents were granted only to those persons who were the first and true inventors of the subject-matter for which the exclusive privilege was given. That was to secure the sole right of using their inventions to sagacious and ingenious persons, who often spent their lives in study, and who were ill requited without it; but it was meant only as a reward to the first and true inventor, and though the matter may not have been used, the party is not entitled to his patent (and this plea expressly raises that question for your determination), unless he is the first and true inventor; therefore, if the subject-matter of the patent has been discovered—has been published in a dictionary, for example—though it has not been reduced into practice, if a man merely adopts it, the merit is so small that his patent for it, would be worth nothing; and upon the present occasion, the plea I now call your attention to, whether the plaintiff is the true and first inventor, will turn upon the inquiry, whether he borrowed his invention from a former patent, which was taken out by Mr. Hancock; because, on the part of the defendants, it is alleged, that virtually and substantially the discovery as it is called of the plaintiff, is no more than an alteration of a discovery of Mr. Hancock's; that you will have to consider, applying the kind of inquiry and investigation which you had before submitted to your minds with respect to the comparison of the plaintiff's and the defendants' specification, to this new investigation as to the specification of Mr. Hancock and the specification of the plaintiff; and that, in effect, is the same inquiry as the next plea, which says, the subject-matter of this invention was publicly known in England at the time, or before the time (A.D. 1834) of the date of the plaintiff's patent. It is not

The question, whether the plaintiff is the true and first inventor or not, depends on whether he borrowed the invention from a source open to the public.

(c) The two issues of novelty, viz. whether the plaintiff is the true and first inventor, within the meaning of the statute, and whether the invention at the time of the grant be new as to public use and exercise, are, as in this case, generally involved together, because, if the latter be established in the negative, the former is involved in it; but they are, in point of law and of fact, distinct issues, for it may well be that the invention was never in public use and exercise, and yet that the grantee of the letters patent is not the true and first inventor, by reason of his having learnt it from some person within the country, or from the specification of some prior patent, or from some published book in general circulation, or other source open and accessible to the public. In such cases it may be a material question for the jury, whether the grantee borrowed it from that source, or devised it of his own wit and ingenuity. See *per* Sir N. C. Tindal, C.J., *ante* 507, and *post* 628; also 5 & 6 W. 4. c. 83, s. 2.

That which is contained in the specification of

a former patent stands on peculiar grounds, both in respect of publication, and as being the subject of a former grant. See *ante* 86, n. c.

The publication of an invention as complete and perfected must be distinguished from that which rests in suggestion and speculation. See *per* Lord Abinger, C.B., *ante* 534; see also in the case of *The Househill Company v. Neilson*, in the House of Lords. *Post*.

A third question may sometimes arise under the issues of novelty, with reference to a completed invention, once in actual public use and exercise, but which had gone out of use and been re-invented and made the subject of letters patent—whether such letters patent would be valid? On the authority of the recent case of *The Househill Company v. Neilson*, in the House of Lords, it would appear that such subsequent letters patent are invalid; but see the exception made by the noble and learned lords at the conclusion of that case. *Post*.

alleged, and indeed there is no evidence at all that there were A. D. 1841. any cards which were made with any substance except leather, with the single exception of those which were made by Mr. Hancock, or by persons under his directions, and therefore, it really, with respect to the two pleas, brings the question identically to this—whether the one patent is distinct in principle from the other, or whether it is merely the raising up again, after the expiring of the old patent, of a new one in substance the same as the plaintiff's. I have already read to you what the specification of the plaintiff's patent is. Let us see what says the specification of Mr. Hancock, and then call to mind the evidence which has been given on each side with respect to that part of the case. Mr. Hancock took out his patent in the year 1825, and he calls it a patent "for a method of making or manufacturing an article which may be, in many instances, substituted for leather, and be applied to various other useful purposes." He does not particularly apply his patent to the making of cards (*d*), but he applies it generally, as you will find by the instances which he gives, to a substitution for leather for nearly all the purposes to which leather could be used. He says, "my said invention consists in filling, saturating, and combining various fibrous substances in their manufactured and unmanufactured state, with a composition which leaves the fibres sufficient flexibility, and at the same time unites and consolidates them into one mass, thereby increasing their strength and durability, and producing by these means a manufacture, which may be in many instances substituted for leather, and be applied to other useful purposes, such as soles for shoes and boots, hose pipes, pails, and other articles which have heretofore been made of leather, and also to other useful purposes, such as the roofs of verandas, corn and flour sacks, packing cloths, and tarpaulins." And he goes on to give an account of the mode in which he makes this new article. He says, "as the same process is applicable to all the combinations, it will be necessary to describe the method I pursue in one case only, as any variation may be made in arranging the different substances at the discretion of the operator. I take a piece of cotton cloth, of any convenient size, and strain it on a board, and spread over it, with a spatula, or other convenient instrument, a full coating of one of the compounds to be hereafter described. I then spread on or over the compound a layer of carded cotton, somewhat similar to the article known by the name of wadding,

(*d*) See in the extract from the 'Journal of the Royal Institution,' ante 585, as to what was said to have been done under this patent. In the subsequent trial, *Walton v. Bateman*, post 613, the user of the artificial leather of Hancock to a limited extent for cards was much relied on, but the exhi-

bition at the Royal Institution, on which occasion more than three hundred persons were present, and the published account in the journal, appear to have been entirely overlooked, and were not brought forward until the trial of the *scire facias* in the year 1842.

Sir N.C. Tindal, spreading over this again another piece of cotton cloth, prepared as the first; I then submit the whole to sufficient pressure between boards or plates of metal, either passing them through or between rollers, or otherwise, to force the composition quite through the layer of carded cotton. I then carefully remove it from the boards or plates, and leave it to dry, either in the open air, or in a warm room, heated to 80 or 90 degrees of temperature, and proceed to make others in the same manner. When I perceive that they are nearly or quite dry, I again submit them to the press; or, if one of these strata is not sufficient to make up the thickness I require, I put two, three, or four more together, spreading the said compound on the surfaces again, if necessary, and increasing the pressure." Now the next account he gives us of the article is, of the compound in which this is immersed, and that is very material for your consideration. He says, "I make the compound or compounds with which I unite or combine the said substances, as follows:—No. 1. I take two pounds of caoutchouc, dissolved in one gallon of equal parts of oil of turpentine and highly rectified coal tar oil, six ounces of black resin, two pounds of strong glue size, and one pound of ochre, powdered pumice, or whiting, and mix the whole together. He goes on to No. 2, which is "one and a half pound of caoutchouc, dissolved as before stated, and one pound of strong glue size." Then he mixes these together, and he immerses the fabric which he has before described to you in it, until it is thoroughly saturated.

That is the account he gives of his discovery; that of the plaintiff being the simple cutting of a slice of native India rubber, and fixing it by a cement which is well known to a piece of linen cloth, and then running the teeth of the card through it. Now whether upon reading of it you think there is a concurrence of invention in the man who comes second, and describes that second mode of producing that effect, or whether, when you weigh the mode by which the first is to be done by various steps, you see there is a real substantial distinction between that and the mode which is adopted by the successor, will be the question for you to determine. That, again, is not left without evidence on both sides, for here you have very strong evidence. On the part of the plaintiff you have Mr. Carpmael, who states himself to be a person familiar with these subjects, and having been long versed in them, and saying, it is a matter perfectly distinct. Then you have Mr. Smith, a cotton spinner, who is called for the purpose of saying, that he had never heard of any thing of the sort until the period of time when Mr. Walton took out his patent; and you have the witness, Abraham Crowder, who was called on the part of the defendants, who states, that until this was known he never knew any thing of the sort in use before; and you have the

evidence of numerous witnesses who have been called from different quarters, to show that they were acquainted with the trade both in Scotland and in the west of England many of them, and in the north, where principally these matters are carried on, and who were much conversant with them, and they all state they never heard of cards being made of any other material but leather until Mr. Walton's were produced. On the other side you have the evidence of Mr. Farey, who states that, in his judgment, the two are perfectly similar—the principle upon which they are both made is the same. Then you have the evidence of Mr. Whiteby, and you have then the evidence of Mr. Hemmingway, who is the person who had adopted and used Mr. Hancock's invention, and several other witnesses, who have received cards made by him, to show they had put in use this invention of Mr. Hancock's, and not any other; and last of all you have, which is important to recall to you, the evidence of Mr. Hancock, the inventor himself, who certainly says, his patent is not the same as Mr. Walton's—that he never understood it to be the same; nor, says he, is it the same as that which is made by the defendants; and that is stated in opposition to Mr. Farey, who, we understand, speaks as a man of science on the subject. You have, on the other side, the evidence of Mr. Cottam, and Mr. Brande, and what those gentlemen state is in contradiction or in opposition, as far as the scientific evidence is concerned, to Mr. Farey, in the opinion he gives. That will be the question for you upon the second and third pleas.

Now we come to the fourth answer, which is, that the specification does not particularly describe the nature of the invention. Generally speaking, the rule which is laid down upon occasions when the sufficiency of the specification is called in question is this—that as these specifications are drawn by men who are more conversant with the particular article than juries, who are selected indiscriminately from the public, and certainly much more than judges, whose knowledge is confined to one particular department, credit is given to witnesses, if they are conversant with the subject-matter of the invention, and are able to tell you, and you believe it, that they see enough on the face of the specification to enable them to make the article without difficulty. You know the object of the specification is, that it is the price which the party who obtains the patent pays for it, and it would be a hard bargain on the part of the public, if he were allowed to clothe his discovery and his description in characters so dark and so ambiguous, that no one could make from it when the fourteen years have expired, and he should not have paid the price for which he enjoyed the exclusive privilege, but that he should have it in his own hands still for as long a period as he chooses; and therefore, it is always a proper

The specification the price paid by the inventor, and its sufficiency in matters of description is a question for the jury.

Sir N. C. Tindal,
C.J., to the jury.

answer when a patent is set up, to say that you have not so described it, that it may be understood. Now, then, upon that you have the evidence in the first place on the part of the plaintiff of Mr. Carpmael and Mr. Cottam; and on the part of the defendant Mr. Farey says, the description in the specification is not intelligible; the part upon which the particular difficulty has arisen is the sentence to which I will call your attention. It is said, that the part which is principally found fault with on the part of the defendants, is the description as to the mode in which the teeth are to be affixed in the card, and also the way in which the card, under certain circumstances, is to be affixed to the engine itself. It is said, "The cloth, when fastened to the caoutchouc, continues to keep the dents or teeth more firmly in their places when in use, and the foundation or fillet being thereby made much stiffer, the action of the dents or teeth is less uncertain in their elastic movement." It is alleged and stated, this leaves it in doubt—whether the teeth under all the circumstances are to be affixed in the card, whilst the fabric of cotton or brown holland is on the back, or not. Some of the gentlemen who have read this before you state, they feel no difficulty upon looking at the whole of it in understanding what was intended—whether the card was to be used as a fillet card, or whether it was to be used by being fixed closely to the top or the back, or any part of the cylinder; they understand that, in either case, the teeth were never intended to be put in until after the brown holland, whether it was to be lasting or temporary, only the brown holland was to be put on the top of it. You will say for yourselves, whether that is made intelligible or not.

Then there is another difficulty pointed out, that "the cloth cemented to the India rubber or caoutchouc is to be affixed to the cylinder or board, or the ordinary carding engine, by nails, but if it is to be affixed by cementing, then it is desirable to remove the cloth." It is said, "what is meant by this?" According to the evidence that was given by one person who read it, he says, it is to be affixed, that is, that the card is to be affixed, and then you are to take away and remove the brown holland, which is only meant for a temporary covering, and fix it close to the machine itself; the back of the engine having the same effect as to the elasticity which is afforded, or rather with a view to resistance, as if there were a fabric of brown holland. However, you have certainly had persons, one or two persons who were artificers, who state, they should feel no difficulty in making from the description that which is intended to be made; you must say how far they speak correctly or not.

It is also said, it is not useful for some of the purposes, viz. top and sheet cards, specified, and that is the last plea you need consider. Now, there has been certainly no evidence

alled before us, that I am aware of, in which any experiment A. D. 1841. as actually been made with a top card or a sheet card, and has ailed. A great many witnesses have been called, who have stated heir judgment and opinions that it would not succeed—one : surprised that the experiment has not actually been tried. The mode in which they state that the sheet card would not uccceed, is, because the sheet card requires, as I understand hem, a very great lateral pressure, for the purpose of fixing it pon the cylinder; and if you give it that great lateral pressure, : seems, according to the judgment of some of them, it would ave the effect of loosening or altering the position of the teeth f the different cards—that they would tear off if you put nails : on the sides of the sheets—and such would be the violence of he pull in order to bring them together, that it would tear ff the edges, through which the nails went, and then they ould become damaged and altogether useless. However, you ave the opinions of those persons, of whom Mr. Bohannan is ne and Mr. Whiteby is the other, and you have on the part of he plaintiff Mr. Cottam, and I think one or two more, who ate, they see no reason why one should not be as useful as he other. Now, this question the fifth plea raises, and what- ver the value of it is, it will be necessary for you to determine : on the one side or the other.

Gentlemen, that is in effect the whole of the case for your inquiry; I can fill up that by going through the whole of my otes of the evidence on the one side and the other, if you wish —if not, perhaps it is better to leave it to you, with this general ew (e). Verdict for the plaintiff.

IN THE COMMON PLEAS.

or. Sir N. C. Tindal, C.J.; Coltman, J.; Erskine, J.; Maule, J. Nov. 18, 1841.

Sir T. Wilde, Bompas, Sergt., and Addison, showed cause ainst a rule nisi obtained in Easter Term last by Channel, Sergt.,

(e) The jury having intimated that they did not sh the whole of the evidence to be gone through, : counsel for the defendants requested the rned judge to leave to the jury the two fol- ing questions. 1. Whether the mode adopted the defendants of saturating the cloth with solved India rubber was not known to Mr. ncock, and practised by him before the date of : plaintiff's patent? 2. Whether or not, if the th were fixed in the fillet and then cemented the cylinder, without any linen at the back, it

would answer the purpose of a sheet card? The counsel for the plaintiff objected that these two questions were neither on the record nor in the notice of objections, and the learned judge refused to leave these questions to the jury.

The defendants had leave reserved to enter a nonsuit, on the ground that it appeared from the specification that the alleged invention was not the subject-matter of letters patent, if that ground of objection was open to the defendants on the record.

to enter a verdict for the defendants (*f*), or to arrest the judgment, or for a new trial, on the grounds of misdirection and verdict against evidence.

The judgment was sought to be arrested on the ground that the invention was not the subject-matter of letters patent, being the application of a known substance to a purpose and in a manner well known, and it was contended on the part of the defendants, that this objection was open to the defendants both under the third and fourth pleas (*g*). On the part of the plaintiff it was contended that this objection was not open to the defendants; that the specification having been set out in the fourth plea as inducement to an allegation upon which an issue of fact had been taken and disposed of by the jury in favour of the plaintiff, the plea was altogether disposed of, and the defendants could not resort to the introductory matter for the purpose of raising an objection, which if intended to be raised should have been pleaded in a proper manner (*h*). That to admit of recourse being had to matter so stated as inducement, would be a violation of the rule of pleading, that matter not traversed in one plea was only admitted for the purposes of that plea.

The alleged misdirection was the refusal of the learned judge to leave certain specific questions to the jury, in addition to the issues on the record (*i*).

Judgment.

TINDAL, C.J.: I shall say but little in this case, because it is, in effect, an appeal from the direction I gave to the jury on the trial of the cause, and I would much rather hear the opinions of my brethren upon that, than rely much upon my individual judgment. I am bound, however, to state generally what the opinion I have formed is as to the effect of the verdict.

I take the motion to proceed, first, upon the ground that the

(*f*) The leave reserved at the trial was to enter a nonsuit, on the ground of the invention disclosed not being the subject-matter of letters patent, if that objection was open to the defendants on the pleadings. *Ante* 597, *n. c*.

(*g*) The court being of opinion that this objection was not open to the defendants, no express decision took place on the question, whether the invention was the subject-matter of letters patent; but it is evident from the judgment of the court and from the course of the argument, that no doubt was entertained on this point. (See remarks of *Cresswell, J.*, *post* 620.) It is clear that caoutchouc, cards, and the various processes and modes described, were well known, but they had not been combined, applied, and adapted for the manufacture of a card in which elasticity was the essential characteristic.

In the course of the argument the court intimated—that the third plea must be taken to admit that the invention was a manufacture, and might

be the subject-matter of letters patent, but denied its novelty; and to assert simply, that the article had been used before—also, that the assertion, that the invention was not the subject-matter of letters patent, meant, that if ever so new or useful, it was for some other reason, as being too simple, or too abstract, or from its peculiar character and nature, not the class or kind of thing intended to be protected by the statute of James.

(*h*) The defendants, in addition to the third plea (*ante*), wished to plead, “That the said invention was not at the time of making the said letters patent or petition a new manufacture within the realm of England, according to the form of the statute.” A judge at chambers refused to allow this plea together with the third, and the defendants elected to rely on the latter. The additional plea in the subsequent case of *Walton v. Bateman*, *post* 613, differed from the plea sought to be pleaded in this case.

(*i*) See the questions, *ante* 597, *n. c*.

verdict of the jury upon the several pleas that were put upon A.D. 1841 the record is against the evidence; secondly, that in the course and progress of the trial there was a misdirection on my part to the jury; and, thirdly, that on the face of the record itself there is that which shows the invention is not the subject-matter of a patent within the statute of James.

With respect to the first ground, the cause was debated at very considerable length and with great ability by the counsel on both sides, and I think there was scarcely a point that arose upon the evidence which was not submitted in its turn to the jury, according to the particular view which the respective counsel entertained of it. It was a case in which there was a considerable body of evidence on both sides, and the jury were to form upon the issues that were before them a just conclusion according to the preponderance of the evidence, and I must say, I see no reason whatever to be dissatisfied with the conclusion at which they arrived. They were first to say, upon the plea of not guilty, whether the mode which had been used by the defendants was virtually and substantially the same as that described in the plaintiff's specification—a mere matter of fact upon which they had the evidence of the plaintiff's and the defendants' witnesses, and they arrived at the conclusion, that the defendants had borrowed their mode from that described in the plaintiff's specification.

Then, upon the two next pleas, the question that was specifically raised for their determination was—whether this was a new invention, or whether it was known before the time when the plaintiff obtained his patent, and they determined, as far as the public use was concerned, that it was new, and not known in England before the date of that patent; and I see no reason for saying, that after they have exercised their judgment upon it, and had the patent of Hancock fully explained to them, and arrived at that conclusion, we should set it aside, and send the case to a new trial. Then there was only one other issue which is material, which was—whether sheet cards and top cards were useful or not, according to the mode of adaptation described in the specification; and upon that they also found their verdict for the plaintiff—the evidence upon that point being of the actual user of sheet cards and top cards and the trial of experiments, though, perhaps, since the action was brought, yet still bearing upon the question—the same subject-matter which produced the same results. There being, therefore, on the part of the plaintiff, positive evidence that it would answer for the purpose of sheet cards and top cards, and on the part of the defendants nothing but judgment and belief that it would not, why are we to set the verdict aside? Therefore, as far as that ground comes into consideration, I think the cause ought not

Judgment.

to be sent back to another jury for the purpose of a second trial.

Then, was there any misdirection? I take the grounds of misdirection, which have been pointed out in the course of the argument, to be these: first, that two certain questions, which at the close of my summing up to the jury the learned counsel for the defendants wished me to ask the specific opinion of the jury upon, I declined putting to them; and secondly, that I ought to have told the jury that, looking at the whole of the patent and the specification, this was not the subject-matter of a patent within the statute of James. With respect to the first point it appears, I think, almost to be admitted in argument, that there was no necessity that I should put to the jury any specific questions which suggested themselves to the minds of the counsel. If they were points which I had overlooked in the course of my summing up, it would be very well to remind me of them, and to request that they should be put more pointedly than they had been in the course of such statement of the evidence to the jury; but it is a very inconvenient thing indeed, if after the cause has been left to the jury upon the specific issues raised upon the record, certain insulated questions should obtain specific answers, and come back to the court out of which the record proceeded. It may sometimes be very useful and necessary. In many cases where the jury may come to a decision upon a point upon two different grounds distinct from each other, and it does not appear what was passing in their minds, or whether they found their verdict on one ground or the other, with the consent of the parties, but not without, if the jury choose to give an answer to the question, it may be useful to ask, whether they are satisfied that such a point was proved in the affirmative, or to answer some question according to the circumstances of the case upon which the verdict may turn; but that is to be exercised, I think, very sparingly, because otherwise the counsel for the defendant may put his two questions, and the counsel for the plaintiff may put two more, and the consequence would be, not that a special verdict would be found by the jury, where all the facts would be before the court, the law being to be determined by it, but certain insulated facts, not embodying the whole, would be found by the jury, which might produce more intricacy and confusion rather than be a real and effectual help in ascertaining the points that were joined in issue between the parties. Therefore, I cannot think, as at present advised, that I did improperly, or indeed unwisely, in declining at that period of the trial to leave these questions to the jury.

I come now to the second ground upon which it is contended that there was a misdirection. I am not prepared to deny—on

If the parties consent, the jury may be asked the grounds of their verdict, but not otherwise.

the contrary, am ready to admit—that if there were an issue A.D. 1841. raised upon the record, which involved the validity of the patent, I was bound to give my opinion, one way or the other, to the jury, that it was a void or a valid patent; but looking at these issues I do not see any one which raises the question—whether this was, in the sense in which it has been argued before us, a manufacture within the meaning of the statute of James, that is, in effect, whether the invention is one for which, in point of law, a patent can be granted—as for instance, whether it is a mere abstract principle not embodied at all, or not involving any combination or process to carry it into effect, or any other objection of that nature. The one that comes nearest to it is the third issue, which is, merely whether it is a new manufacture known in England in the exercise and practice thereof at the time the patent was granted; but that directs the mind of any person who looks at it to a very different inquiry from that involving the question—whether the invention is, within the meaning of the statute of James, a manufacture for which a patent may be granted—taking it for granted that it is a manufacture, and only raising the question whether, being a manufacture, it was in public use and exercise at the time the patent was granted or not—and therefore, to leave that inquiry, and suddenly to decide upon the other in the course and progress of the trial, would be to mislead the party who had come into court to contest the question before the jury. I think there is another objection also which would equally stop me from declaring that opinion, namely, that when we look at the notice of objections delivered under the authority of the act of parliament, and out of which the court cannot go, I do not see one which is pointed to that specific ground of invalidity; but, in fact, it is no more than carrying our minds to that third plea, whether it was a new manufacture within the kingdom of England when the patent was granted; and therefore I think, upon both these points, as a matter of evidence or as a matter of direction to the jury, I should not have been warranted in raising or putting that objection to them.

The plea that the invention is not a new manufacture known in England, admits the invention to be a manufacture, and puts in issue the novelty.

Then, the last ground is—is this upon the record so that error may be assigned, and that the court may be called upon to arrest the judgment; for unless the court can be called upon to arrest the judgment, we have nothing to do but to let it pass in its ordinary course. I think, looking at the terms of the fourth plea, the question does not come properly before us. There is an allegation in that plea, that the specification which was enrolled was so and so, stating it in *hæc verba*. That is only used as matter of inducement upon which afterwards to state a new allegation, that top cards and sheet cards within the meaning of that specification are useless. That is the question which is raised upon the record, and after that has been raised, and

Matter stated in a plea as inducement to a

specific allegation, upon which an issue in fact is taken, is not on the record for other purposes than the issue.

the jury have found that issue in favour of the plaintiff, it does not appear to me that the defendants can afterwards turn round and make that which was only inducement and not issue, a substantive ground of allegation upon the record of the invalidity of the patent itself. Such appears to my mind at present to be the proper reasoning upon it, but there it is upon the record if the parties upon further consideration should think me wrong. Therefore, upon the whole, I think the judgment must be given for the plaintiff.

COLTMAN, J.: It appears to me that in this case there is no sufficient ground for a new trial. As to the first issue which went to the jury, whether the defendants were guilty or not of an infringement, the main pressure of the argument upon that point, as I understand it, has been this—that the jury were misled, and induced to consider that the question for their determination was, whether the manufactured article of Messrs. Potter and Horsfall was an imitation of the manufactured article of Mr. Walton, rather than whether it was an infringement of his patent; and that was founded chiefly upon this, that it was treated, as it is alleged, in the course of the argument on one side, and the other, as if the use of the non-elastic linen at the back of the card was an essential part of the patent; and it is said that it was not so—that the patent was merely for the simple application of caoutchouc as the fillet, and that the cotton and linen at the back of it is no part whatsoever of the patent, or of that which is claimed as the patent, but only a part of the manufactured article which is produced; but, I confess, I do not accede to that view of the patent, because the terms of the specification being, “I confine my claim of invention to the application and adaptation of caoutchouc as the fillet in which the dents or teeth are to be set together, as above described”—that does appear to me to be, not simply a claim to the use of caoutchouc, but to the adaptation of it to the reception of the dents or teeth by putting at the back of it a linen cloth, which in the original manufacture is proved to be an essential part of the invention; for although the cloth may be removed afterwards, yet it is by means of having some stiff and permanent substance of that nature that the dents are to be inserted into the caoutchouc, the caoutchouc of itself being a matter so elastic. Therefore, there is something more than the simple application of caoutchouc to the manufacture of a card and the inserting of the dents in the fillet. So that it appears to me, there is nothing in the application of the argument arising from the use of the linen at the back of the fillet which should lead me to say, that the jury have been misled or induced to take a wrong view of this matter when they found their verdict that the defendants were guilty of an infringement.

As to the second plea, that the plaintiff was not the first

inventor, certainly it seems the evidence is quite satisfactory, A.D. 1841. that if it was a new invention he was the inventor of it. As to the third plea, or the circumstance whether the invention was new or not, it is said it was not new in respect of its similarity to Hancock's patent; but I think the answer which has been given by the court on that subject is quite satisfactory, and that any other verdict by the jury upon that point would have been wrong, because in Hancock's patent, although undoubtedly caoutchouc is used, yet it was chemically combined in a way which entirely destroyed its properties as caoutchouc, and made it a perfectly different substance—as different as water from the gases of which it is compounded; and there is this peculiarity in that patent, that according to no chemical process that is known could the caoutchouc, after being reduced to the state to which Hancock reduced it, be afterwards brought again into the state of caoutchouc; it had permanently ceased to be that which has the chemical qualities or the natural properties of caoutchouc. With regard also to the other question, that the patent does not apply to top cards and sheet cards, it appears to me that the jury had good grounds for the verdict that they have found upon that point. It is said also in the last plea, the description in the patent is not sufficient. Upon that very little stress has been laid in the argument, and I think, upon the whole, there is no ground for saying that there is any difficulty in the understanding of this patent by a person of competent skill. Of course it cannot be expected that I should understand the parts of it in the way in which a person used to the work can, but at the same time I do not know that even an ordinary person like myself, quite unacquainted with manufactures, would find any difficulty in understanding any part of this patent. It seems to me to be explained with sufficient distinctness.

Then it is said there was a misdirection. Now, upon that, the first point is, the not putting those two questions to the jury. It appears to me those questions were the natural foundation of arguments in the course of the cause, but they were not the issues to which the attention of the jury was to be directed; and they rather seem to have been suggested for the purpose of betraying the jury into a sort of inconsistency in the verdict they should find, than questions really calculated to advance the fair trial of the cause, because, by a very dexterous mode of putting a question, there may be an apparent inconsistency in the finding upon it, and the ultimate result the jury may come to, when substantially they have understood, with all that reasonable degree of certainty with which juries can ever be supposed to understand questions of this nature, the whole bearing of the question before them.

Now, to come to the last point in the case—the question of

Judgment.

what is, or what is not, on the record. Upon that subject, I do not at all feel confident that this question is not upon the record, because it appears to me that in substance the defendants in this case have pleaded a plea, which if good is an answer to the action, and have added to it some immaterial allegation, assuming that the specification is bad (*k*), because they set out the specification. I am rather disposed to think that it does appear upon the record; that this plea, if the specification is bad, would raise that question. Then, though they have gone to trial upon an immaterial issue, I do not feel confident, if the plea were good, that the right course would be to give judgment against the defendants upon that point. But it appears to me that in this case the plea is not good, because I think the patent is a valid patent. It is true that the invention is very simple in its nature; but upon the best consideration I can give to this subject, I think, though it is a very simple adaptation of caoutchouc as a fillet, still it is an adaptation of caoutchouc as a fillet, in a manner not practised before; a substance, indeed, well known before, but whose properties and qualities for the purpose of being adapted to this particular purpose had never been known or used before; and, therefore, it was properly the subject of a patent; and if it were properly the subject of a patent, then it becomes quite immaterial to see whether, if a different conclusion were come to upon the subject of this specification, the question does or does not arise upon this record.

The adaptation of a substance of known properties to a particular purpose, the subject of letters patent.

ERSKINE, J.: I am also of opinion that this rule should be discharged. It has been applied for on several grounds. First of all, an application has been made to enter a verdict for the defendants; secondly, to have a new trial; or thirdly, to have the judgment arrested, on the ground that the subject-matter of the invention claimed by the plaintiff in his specification is not a legal subject of a patent. As to whether a verdict should be entered for the defendants, or whether a new trial should be granted, both turn upon the same question, namely, whether there is any issue upon this record to raise this question before the jury? Because, if there is no issue upon the record to raise this question before the jury, it could not be a misdirection of my lord, who tried this cause, omitting to state to the jury whether this was, according to the specification, a fit subject of a patent or not; and, of course, there can be no verdict

(*k*) The learned judge, it is conceived, must be understood to speak of the specification being bad, by reason of its not disclosing a sufficient invention as the subject-matter of letters patent. The specification may be good, as a sufficient compliance with the proviso, inasmuch as it particularly describes and ascertains the nature of

the invention, and in what manner the same is to be performed; but the invention so disclosed and described may not be the subject-matter of letters patent; it may be, as expressed by the Lord Chief Justice, an abstract principle, or it may be an invention not within the scope of the patent laws.

entered for the defendants if there were no issue upon the record A.D. 1841. to raise that question. Now, it appears to me there is no issue upon the record to raise the question before the jury, whether this was a fit subject for a patent; because the only plea upon which it is attempted to be raised is the third plea, and that plea does not assert, as the defendants might have asserted, that this invention was not a new manufacture within the statute of James, upon which the plaintiff might, by demurring, have raised the question of law; or might, by plea, have put the defendants to demur: but it is an averment, that this invention was not new as far as regards the public use; admitting therefore, in substance, that it was such a manufacture as might have formed the subject of a patent, yet that it was an old manufacture known before, and therefore that the plaintiff, in point of fact, would fail by the proof that it was not a new invention, and that he was not the inventor of it.

The plea denying the novelty of the invention admits that it is a manufacture.

Then as to the question—whether the judgment should not be arrested on the same ground, that depends, first, upon the construction and effect of the fourth plea, and next upon the legal effect of the specification set out upon that plea, if the plea is sufficient to raise that question of law; but I agree with my Lord Chief Justice, that the fourth plea is not sufficient to raise that question of law; therefore, upon the point of law, I shall forbear giving my opinion. Now the fourth plea sets out the specification, and then avers that sheet cards and top cards were useless according to the specification; that this invention is useless as regards sheet cards and top cards. To this the plaintiff might have replied, either denying that this was the specification that he had enrolled, and setting out some other specification which he had enrolled, in which the matter alleged here as a legal defect might have been cured, or he might have taken issue upon the facts alleged as to the utility of the patent with respect to sheet cards and top cards. He chooses the latter course, and for the purpose of trying that question he admits that this is the specification to which he alludes in his declaration, and therefore, as far as this question is concerned, he is willing to abide by this specification: but it does not appear to me that he admits it for any other purpose, and therefore we are not at liberty to look to that specification, as set out in this plea, for the purpose of deciding whether this is, in point of law, a good patent or not.

Then if, as, according to my opinion, the defendants rightly failed upon the ground, that this is not the subject of a patent, the other questions arise, and then the defendants say—they are entitled at all events to a new trial; first, because the verdict is a verdict against evidence; and next, because, even if the evidence might warrant the verdict, the jury were misdirected by the judge, and they have not had an opportunity of con-

Judgment.

The invention of the plaintiff consists in rendering available the elasticity of caoutchouc for the purpose of of cards.

sidering that evidence in its proper light. Now, as to its being a verdict against evidence, it is said, that it is so upon the ground of the second and third pleas; the second being, that the plaintiff was not the inventor, and the third plea being, that it was not new in regard to its public use; and then it is said, that this process, by which the plaintiff made his cards for carding wool, was well known to the public before: that, first of all, Mr. Hancock had used it; and next, that he had actually taken out a patent for it, and had named it in his specification; but that at all events it was known to Mr. Hancock and known to the public, partly by Mr. Hancock using it, and partly by his having described it in his specification. The first question, therefore, in considering whether this was a verdict against evidence, will be to see—whether what Mr. Hancock used and described is, in substance, the same as that described by the plaintiff in his specification; and it appears to me that, looking at the principle upon which the plaintiff claims this invention, and looking upon the principle upon which Mr. Hancock claims his, they are essentially different. The plaintiff claims his process in respect to the elasticity of the India rubber, which is the material he professes to use for the purpose of making these cards, and of applying the elasticity of this substance in a particular manner, namely, in having the India rubber, the elastic substance, next to the teeth of the card. In the course of his description of how he uses that India rubber, he specifies the employment of a piece of holland or other linen for two purposes; first, for the purpose of enabling the card maker to put in the teeth at equal distances, and next for the purpose of fixing the card to the machine, if it be not cemented to the machine; but still his principle is the placing India rubber, as a very elastic substance, next to the teeth of the card, so that in its operation you shall have, not only the elasticity of the wire of which the teeth are made, but also the elasticity of the substance upon which the teeth in the first instance rest, using as the mode by which the elasticity is to be in some degree checked and controlled, and made useful, either the cloth at the back, or the frame of the machine at the back, if the India rubber be cemented to the machine. Well, then, what is Mr. Hancock's patent? He does not profess to have invented some substance which for its elasticity shall supersede the use of leather in the manufacture of cards, but he professes to have discovered a composition, applied to cloth, by which that new manufacture may be substituted for leather for various, and indeed for all, purposes. Now the plaintiff's invention claims for its merit, that this is a substance more elastic than leather—not that it resembles leather, but it differs from leather by being more elastic and by being more equable in its thickness, and in all its qualities. So that Hancock's plan, being merely a substi-

tute for leather—in which the elasticity of leather forms no A.D. 1841. ingredient according to his description, but, on the contrary, he uses materials by which his fabric would be less elastic than leather itself, for his plan is by inserting his composition between two layers of cloth, by which the elastic matter, even if it were elastic, would be confined between the two non-elastic substances—would be totally different in principle from that upon which the plaintiff rests his claim. There are, therefore, two objections to the identifying of Hancock's plan with the plaintiff's plan—first, that the composition which he makes use of is not India rubber, but India rubber mixed up with other substances, which destroy its elasticity; and next, that that composition when thus made is inserted between two non-elastic substances, instead of being next to the teeth of the card, which appears to me to be the main principle of Mr. Walton's improvement; and that is the ground upon which, as I understand it, Mr. Cowper's evidence was given, to show how that elastic principle would be of use in making cards according to Mr. Walton's process, when it would not be useful according to the process adopted by Mr. Hancock, even if the substance he had made use of had been India rubber in its original form.

Then, if this is not Mr. Hancock's plan, there is no evidence of any other plan by which India rubber was brought into use, and therefore I think, that so far from being a verdict against evidence, the jury could hardly have come to any other conclusion upon the proof that was given, that this was new as regarded public use, because there was no evidence to show it had formerly been used by others.

Then comes the issue raised upon the fourth plea, viz. that this invention was inapplicable to sheet cards and top cards. There was evidence on both sides; evidence, however, of witnesses on the defendants' part, who had not tried the experiment, but confined to judgment and belief; whilst the plaintiff's witnesses, equally entitled to credit, at least, with those on the part of the defendants, spoke of experiments that had been tried and had succeeded. It was for the jury to come to a conclusion which of them were giving the best reasons for the opinion they had formed, and I have heard nothing to convince me that the conclusion they have arrived at is wrong.

Then there remains the first plea, by which it is denied that the defendants had infringed the patent of the plaintiff, and that depends upon whether the plan which the defendants have employed, is in substance the same as the plaintiff's, and whether all the differences which have been introduced by them in the manner of making their cards, are not merely differences in circumstances not material, and whether it is not in substance and effect a mere colourable evasion of the plaintiff's patent. The jury, it appears to me, have come to a right conclusion,

The defendants' card an infringement of the plaintiff's, both employing the elasticity of caoutchouc next to the teeth.

Judgment.

that this was in effect and substance the same as the plan of the plaintiff. The plaintiff's plan is, the insertion of the teeth through India rubber, giving to the teeth the additional elasticity of the India rubber, beyond what the wire had of itself. The defendant's plan is for the same purpose. The only difference is, that the plaintiff in employing the India rubber takes a slice either from the original block, as it is imported into this country, or from the improved block as it is used after it has been compressed, and places it upon a piece of holland, for the purpose of keeping the teeth more firmly in their places, and then afterwards placing it on the engine, by nailing that holland on the engine, or taking away the holland and cementing the India rubber to the cylinder, giving an elasticity to the teeth of the card by the India rubber which is next to them. The defendants' plan is to saturate a piece of cloth with India rubber dissolved, and then to lay upon the surface a further layer of India rubber on both sides, and then to insert the teeth through the substance of the cloth and the India rubber. But what is the principle upon which this becomes useful to the card, and the persons who employ these cards in the carding of wool? Why it is, that there is upon the surface and the substance of the cloth the elasticity of the India rubber; that the India rubber is there in its natural state, having been brought back into that natural state by the evaporation of the material in which it had been first dissolved for the purpose of first laying it on. The only difference, therefore, is in the mode of laying on the India rubber for the purpose of having it pierced by the teeth. That appears to me not to be a difference in principle, or a matter which so varies the plan of the defendants from the plan of the plaintiff, as to entitle them to call it a new invention, or different from the plaintiff's. It seems to me a mere difference in circumstances not material; and therefore it is an infringement of the plaintiff's right, and the verdict of the jury ought to stand.

But, it is said, the jury have come to this conclusion under a misdirection of my Lord Chief Justice, in not having put to them certain questions which were suggested by counsel to him. Now, it appears to me, the questions that were suggested by the counsel for the defendants were, in substance, put to the jury, so far as the issues raised any such questions for their consideration; and that it was not the duty of the judge to put them in the form which was suggested by the defendants after the summing up he had already made. If my lord had taken these questions, and put them to the jury substantively as asked by the defendants, then the plaintiff would have asked him to put further questions, according to his mode of arguing the case; and then there would have been a fresh summing up, quite in a new form, and the jury might have been confused by

the supplementary questions. What we have to look to is, A.D. 1841.
 the direction my lord had given before these questions were
 posed, and it seems to me, he had put to the jury the ques-
 s they had to decide—had brought before them the con-
 siderations upon which those questions ought to be decided by
 a; and it was unnecessary for him, therefore, to go further
 and put the questions in the form suggested. Upon all these
 facts, therefore, I am of opinion the verdict for the plaintiff
 is right, and that this rule ought to be discharged.

LAURE, J.: I also think that this rule ought to be dis-
 charged. A new trial is asked for, on the ground that the
 verdict was against the evidence. That will depend in some
 measure upon the sense in which the issues are to be under-
 stood; and what has been thrown out in the course of the
 argument, by my Lord Chief Justice and my learned brothers,
 sets out what the view of the court is as to the sense of the
 facts. With respect to the third plea—that it was not a new
 invention as to the public use—the meaning of that is, that it
 was not a new invention, but an old one; that, whatever it was,
 might be a thing which was the subject of a patent, but it was
 not one which other people had used before.

With respect to the issue of not guilty, in order to determine
 whether or not the verdict has been correctly found for the
 plaintiff on that issue, it is necessary to consider what is the
 effect of the defendants' patent; for it is quite clear that what
 the defendants have done they claim to do under their patent.
 In their specification the defendants claim to be the inventors
 of new material for forming the backs of cards; and they de-
 scribe the mode of preparing it thus, viz. "by repeatedly passing
 a woven fabric of a peculiar construction through, and satu-
 rating it with, a solution of caoutchouc or India rubber, and
 drying it in order to evaporate the solvents, and leave the
 fabric impregnated and coated with caoutchouc or India rubber,
 afterwards submitting it to pressure;" and the object they
 describe as being to render the fabric so dealt with "extremely
 elastic in the direction of the thickness of the fabric, so as to
 impart, as it were, elasticity to the wire teeth when set." That
 is the effect, producing by a circuitous process a cloth with a
 coating of caoutchouc or India rubber on each side of it, so as to
 impart a great degree of elasticity to the basis of the dents or
 ridges of the card. The plaintiff, by his specification, claims the
 exclusive right of making cards with caoutchouc or India rub-
 ber as the fillet, or sheet, or medium in which the dents or
 ridges are to be set—the object being, like that of the defend-
 ants, the attainment of a superior degree of elasticity and dura-
 bility; and, in describing his mode of attaining that object, he
 states that he inserts the wire dents or teeth in a foundation or
 sheet of caoutchouc or India rubber—a slice of India rubber in its

The defendants
 practise by a
 circuitous mode
 that which falls
 within the claim
 of the plaintiff's
 patent.

Judgment.

natural state—and that, with a view to preserve the regularity of distance and uniformity of the dents or teeth, and to render their action less uncertain, he cements to the back of the caoutchouc or India rubber a piece of brown holland or other like cloth. The plaintiff does not confine his claim to using India rubber by means of slicing it; he claims the exclusive right of making cards, by fixing the dents or teeth in India rubber, using for that purpose cloth, some texture of linen, or cotton. In some instances, he says, the cloth may be removed. That does not, in point of fact, make it less a part of the process, by which he applies cloth, for the putting the dents into the layer of India rubber. If that be so, I think it is evident the defendant's claim to do a thing falling within the generality of the plaintiff's claim. Taking that to be so, the evidence is abundant to justify the jury in finding—and it seems to me to require them to find—for the plaintiff.

The invention of Hancock has no elasticity in the sense of the plaintiff's invention.

With respect to the issue of its not being new as to the public use, it is alleged that Hancock's patent is the same thing; that Hancock's patent had been used before, and, therefore, that this is not new as to the public use. That conclusion is perfectly just, supposing the premises to be supported; but that Hancock's patent is the same thing, is a proposition which I think is wholly untenable. Hancock's patent was for making a non-elastic substance as a substitute for leather; when I say "non-elastic," I mean only in a certain popular sense, that is, having no perceptible quantity or degree of elasticity; it was a substitute for leather, leather not being elastic. But with respect to the subject in hand, which is the application of a substance so elastic, as in a very small space to yield to so great an extent as to permit the dents, without changing the form of the material of which they are composed, easily to bend to a considerable angle from the surface upon which they are placed—with respect to that degree of elasticity, the substance produced by Hancock, or attempted to be produced by him, certainly was not elastic—it was not an elastic substance, nor was it India rubber, to which elastic substance the plaintiff confines his claim. Although Hancock used India rubber in the compound, that compound might just as well be called size, or glue, or pumice stone, or whiting, as India rubber, for all these things are used, and the result is, a substance which is none of these things, but something else, which if you wanted a short name for, you would call artificial leather.

Now, with respect to the fifth issue, as to the invention not being particularly described, it was very ably urged in argument, that if you construe the relative with reference to the last antecedent, so as to make glaring nonsense of the specification, it was not a sufficient description; but if you are allowed to employ your understanding, it would be quite intelligible. I do

not think there is any objection to the specification with respect A.D. 1841. to its want of particularity; so that, with respect to the verdict being against the evidence, I do not think there is any reason for disturbing the verdict.

Then, with respect to the arrest of judgment; for the reasons which have been thrown out during the argument, I think the question of the sufficiency of the specification—the question, whether the invention is one that is the subject-matter of a patent—certainly does not arise upon the third plea, because, as I have said before, that third plea means, it is not new but old, admitting it to be a manufacture for which a patent might be granted. I think the same observation, if necessary, applies to the objection delivered in by the defendants to the plaintiff, which has been relied upon as raising this point. That objection, I think, points, and was intended to point, to the novelty of the invention. There is no doubt, in the course of this litigation between the parties, the defendants were more disposed to rely upon the difference, which superficially is considerable, between their own patent and the plaintiff's, and to insist it might stand very well with the plaintiff's, than to say, they were the same thing, and both were old, and so let them both open to the public. As to arresting the judgment on the fourth plea—the fourth plea states the specification (mentioned in the declaration to have been duly enrolled) as “a certain specification,” which is set out, and then it does not allege that no other specification was enrolled, but it goes on to state, “the invention is not useful for the purpose of sheet cards and top cards,” and upon that there is an issue, which has been found for the plaintiff. Now, it seems to me, upon this state of the pleadings, the defendants cannot raise the question, whether this invention be an invention which is the subject of a patent. Whether, supposing they could raise it—supposing we could look at the specification, it would raise the question, whether the invention was not a manufacture within the statute, is a question which I do not think it necessary to decide. If it was sufficient technically to raise that, there ought to have been an averment, that the invention was not an invention within the statute; but there was no such averment upon this fourth plea. It states the specification, mentioned in the declaration, to be as set out in that plea; it assumes that the specification shows an invention not within the statute, or does not show an invention within the statute. Still, it may be that the patent is good, or it may be that it is bad, for a patent may be good if the invention really was of a description within the statute, and another specification was duly enrolled. This plea does not show, whether the defendants relied upon the insufficiency of the specification, or upon the invention itself being insufficient, and after the issue has been joined and found against the defendants, I do not

As to the plea to raise the question of the invention being the subject of letters patent.

Judgment.

think they are entitled at all to take into consideration the facts mentioned in the introductory part of the plea. The meaning of the replication is, "with respect to all the facts, except those I think fit to deny, I, the plaintiff, will not raise any question, but I deny that fact;" that fact is found for the plaintiff, and I think that puts the previous allegation of the plea entirely out of the question. But, supposing the facts had been found the other way, and those facts had been immaterial, I do not think a party who pleads a plea informally, and concludes with the averment of an immaterial fact, can afterwards, if that fact is found for him, have recourse to the previous matters in the plea in combination with the rule which provides certain liberal modes of intendment in favour of pleas not specially demurred to. This is not like a plea where there is an issue upon a material fact, or where there is a general demurrer, but the defendants state the specification here to be the specification mentioned in the declaration. It may be, therefore, that if they had concluded there, and stated that this they were ready to verify, and so shown that they relied upon the insufficiency of the specification, it may be, that upon general demurrer the plaintiff would not have been entitled in reply to say—"you have not stated there is no other specification;" but I apprehend, he is entitled to say so, when the plea which is pleaded is one that does not require that allegation in point of form, and when he is entitled to take issue upon it. I think, therefore, that upon this plea the question—whether the invention is a novel invention, so as to be the subject of a patent—is not a question which is upon the record. It often happens that the invention may be very good, and the specification very bad—and here it is the badness of the invention, and not the badness of the specification, which is suggested. Therefore, I think the judgment ought not to be arrested.

Any specific question to be put to the jury ought to be short, and must be with their consent.

With respect to the alleged misdirection, from the two questions not being put to the jury which were suggested, I think, although it is sometimes convenient that a question not upon the record—a question of fact, not raised by any of the issues—should be put to the jury, that it is an informal proceeding, which can be only by the consent of all the parties, and that it is subject to many limits. One of them is this—that it ought to be some very short simple matter, about which there is little or no doubt, and which may be easily decided, and which it may be convenient for the parties upon a motion for a new trial, to take to have been decided one way or the other. But where it is likely to lead the jury to a wrong conclusion—where there may be a good deal said about it on both sides, and where there are actually upon the record a considerable number of questions which the jury must decide, then, I think, it ought not to be done, because, it might have the effect of creating

confusion, which may be a thing for the interest of the party A.D. 1841. who is in the wrong, but not a thing for the interest of justice; and it may very often happen that those intermediate questions, these questions of fact, which are incident to the issue to be decided upon the record, may be questions which the jury ought not to be asked. They cannot be asked, I apprehend, without their own consent; they cannot be compelled to give a verdict upon it for this reason—it may be, that there is an issue joined which involves twelve questions of fact, we will suppose, and if any one of them is found one way, that would sustain a verdict on the issue for the plaintiff or defendant. Possibly, upon each of these twelve questions of fact, there is one jurymen who has no doubt at all, but would find otherwise upon the other eleven! In such a case the jury may be unanimous in finding a verdict for the plaintiff or defendant, and they ought to find for the plaintiff or defendant without further inquiry; but it may be, and most likely would be, impossible they could all agree upon some one of these facts, and the consequence would be, that they could not give a verdict, or if they did at last do so, the verdict might be against the opinion of the jury upon the rights of the parties in the whole matter. There is no rule that a verdict cannot be sustained unless each jurymen arrives at his conclusion of fact by the same road. There may be several correct processes of reasoning differing from each other, in which different facts may be considered as proved by different jurymen, by which they may all arrive at the same end—that end being the issue of fact joined upon the record. Upon all these grounds, I think the rule should be discharged.

Rule discharged.

WALTON v. BATEMAN & OTHERS.

Cor. Cresswell, J.

May 10, 11, 12,
13, A.D. 1842.

This was an action for the infringement of the same patent as in the preceding case. The declaration was in the usual form, and the pleas were—1. Not guilty. 2. That the invention was not a new invention as to the public use and exercise thereof. 3. That the invention was not a new manufacture within the meaning of the statute. 4. That the plaintiff did not in and by the said specification particularly describe and ascertain the nature of the said invention, and in what manner the same was

to be performed. 5. That the said invention was unfit and useless for sheet cards and top cards (a).

Notice of objections.

The notice of objections was a repetition of the pleas, and also various other grounds, some of a general and others of a specific nature, upon which the defendants intended to rely (b).

Sir T. Wilde, Bompas, Sergt., and Addison, were counsel for the plaintiff; Sir W. Follett, S.G., Talfourd, Sergt., Channell, Sergt., Cowling, and Cardwell, for the defendants.

Some of the cards, sold by the defendants and alleged to be an infringement of the plaintiff's patent, were made according to the plan described in the specification of Potter & Horsfall's patent, which had been the subject of the preceding action; and others of the cards, as to the fabric into which the teeth were set, or the back of the cards, were manufactured in the manner of the Macintosh waterproof cloth, a thin film of India rubber or caoutchouc cement being spread over cloth, and five or more cemented surfaces of such cloth being placed and pressed so as to adhere together. The general nature of the evidence will appear from the following portion of the summing up of the learned judge (c).

The summing up.

CRESSWELL, J.: This is an action in which the plaintiff seeks to recover compensation in damages for an alleged infringement of his patent right, and before I proceed to read over to you the mass of evidence, I will endeavour to point out the law upon the subject of patents, and the manner in which the various questions are raised on this record. Gentlemen, patent rights, or rather monopolies, having for a considerable time been a subject of contention and complaint in this country, in the 21st year of James the First's reign an act of parliament was passed to put down monopolies, and to enact that all parties should be disabled from using monopolies, except in certain instances; and in the sixth section it was thus enacted—"That any declaration

(a) The defendants had applied to plead in addition to the above, the two following pleas: That the cards mentioned in the petition and letters patent were generally known previously, and that the alleged improvements were not an invention in respect of which the said letters patent could lawfully be granted—That parts of the cards so mentioned were generally known, and that the alleged improvements were not an invention in respect of which the said letters patent could lawfully be granted. But Coltman, J., at chambers, refused to allow these pleas. A rule having been obtained by the defendants calling on the plaintiff to show cause why the above order should not be rescinded, and the two pleas added; Bompas, Sergt., showed cause on the ground that nothing could be given in evidence under those pleas which would not be admissible under the third plea.

Tindal, C. J.: It seems to me that the defence which the defendants are desirous of setting up under these additional pleas, may be set up under the third plea. That plea involves, as well the question of novelty, as whether or not the alleged

invention is a manufacture within the statute of James, and therefore I think the pleas properly disallowed. 4 Scott's N. C. 397.

(b) See observations of Cresswell, J., in his summing up, *post*, as to the inconveniences of this form of notice of objections.

(c) At the close of the plaintiff's case, Sir W. Follett, S.G., took several objections, in point of law, to the validity of the plaintiff's patent, and amongst others the following: That if the invention was for the use of India rubber in any way for the back of cards as an elastic base, that would amount to a claim for the use of a material, and, as such, could not be the subject-matter of a patent: That the claim as to the use of the cloth was uncertain, since it did not appear whether it was essential or not. Cresswell, J., having expressed his opinion, that the specification was sufficiently clear, and that it did not claim the cloth as essential, but recommended it as an important addition, and also that the invention claimed was the subject-matter of letters patent—Sir W. Follett, S.G., on behalf of the defendants, tendered a bill of exceptions to such direction.

before mentioned shall not extend to any letters patent and grants of privilege for the term of fourteen years or under, hereafter made, of the sole working or making of any manner of new manufactures within this realm, to the true and first inventor and inventors of such manufactures, which others at the time of the making of such letters patent and grant shall not use, so as also they be not contrary to the law nor mischievous to the state by raising of the prices of commodities at home, or hurt of trade, or generally inconvenient." The power of the crown, therefore, to grant a patent is limited to such cases as are within this, which is in the nature of a proviso on the more general clause. The power is to grant the "sole working or making of a new manufacture," therefore there must be a new manufacture, "to the true and first inventor." The party obtaining the patent must be the true and first inventor in this country. If he import from a foreign country that "which others at the time of the making of such letters patent and grants did not use," it will suffice. Now that has been held (as I shall point out to you more particularly by and by) to mean a user not by way of experiment, but a public user; in distinguishing which, the knowledge of the parties as to the article in use will be material for your consideration. Then, it is not to be "contrary to law or mischievous to the state." Now there is no plea upon this record stating that this is contrary to law or mischievous to the state. In one shape the question of its being contrary to law is raised, because it is alleged not to be a new manufacture, and if not a new manufacture it would be contrary to law. But what is or what is not a new manufacture in that sense, excluding the consideration of who is the first and true inventor—whether it is a manufacture within the meaning of this act, I apprehend to be a question of law, and that question, as far as I can, I have disposed of in this case, and I am happy to think that, if it is of any importance to the parties, and if they think they can successfully controvert the opinion I have expressed upon that point, they will have the opportunity of carrying it to the highest court in the kingdom, provided your verdict should make it necessary for them to do so.

The user which will vitiate letters patent must be public, and not by way of experiment.

Now, the plaintiff represented that he was the first and true inventor of "improvements in cards for carding wool, cotton, silk, and other fibrous substances, and for raising the pile of woollen and other cloths." That is the thing he professes to have invented—"certain improvements." That is the patent. The patent says nothing at all, nor is it necessary it should, about the particular nature of his improvements, and still less about the means by which he carries those improvements into operation. The patent grants this—"that no person shall at any time during the continuance of the term of fourteen years hereby granted, either directly or indirectly make, use, or put in

*Cresswell, J.,
to the jury.*

What constitutes an infringement.

The object of the notice of objections to prevent surprise.

practice the invention, or any part of the same; nor in any wise counterfeit, imitate, or resemble the same; nor shall make or cause to be made any addition thereunto, or subtraction from the same, whereby to pretend himself or themselves the inventor or inventors, deviser or devisers thereof, without the license, consent, or agreement, of the said James Walton." Therefore, they are not to resemble or counterfeit; they are not to make any addition to, or any subtraction from, it; availing themselves of that which is in truth the subject-matter of his patent; so as by such alteration to pretend that they are the true inventors of that article. Now the defendants, in the first place, say that they are not guilty—that is, they say they have not directly or indirectly made, used, or put in practice the invention, or any part of it—that they have not counterfeited, imitated, or resembled the same, nor made or caused to be made, any addition thereunto, or subtraction from the same, whereby to pretend themselves to be the real and true inventors. The defendants deny that they have done any part of that, and if you find that they have, then the first issue must be found for the plaintiff. They next plead, "that the alleged invention was not nor is a new invention as to the public use and exercise thereof." It is right I should direct your attention now to a subsequent statute, which was passed for the protection of patentees, because it was found that when actions were brought for infringements of patents, objections were frequently started by surprise upon the party, which he might have been prepared to meet if he had had due notice of it, but which, not having had that notice, he could not meet; and so it was supposed injustice was sometimes done to patentees; and an act of parliament was accordingly passed, which provided that a defendant in such an action intending to avail himself of objections to the patent, should, at the time of pleading, give a notice of the nature of his objections; and I cannot help thinking, after reading carefully the notice of objections given in this case, that it would be a very good rule to establish that, with the notice, the party should be compelled to say under which plea he means to bring forward the different objections; for I protest, looking as carefully as I can at these objections, I have had very great difficulty in knowing how the defendants mean to apply them, and I fear that in this case, and in others, objections so drawn, without any such specific statement as to the plea under which they are to be given in evidence, instead of serving to help us in the due administration of justice, may serve as traps and pitfalls for judges and juries to be caught in. Gentlemen at the bar will do the best for their clients, but I think it would assist the administration of justice if the parties had distinct notice how the objections were to be applied.

With respect to this not being a new invention, the nature

of that objection is distinct and clear upon the face of it. It A.D. 1842. involves two questions for your consideration. First, was any article made before, answering the purposes and having the properties of that, which the plaintiff has made and claims as the patent? Are you satisfied by the evidence in this cause, to which I shall direct your attention by and by, that any article was in fact made and sold at a previous period, having the qualities and the properties of that which the plaintiff claims as his patent article? That is one part of it. To say that an article was sold before, which would make a card back, is nothing to the purpose. Leather was sold before to make a card back, but because leather would make a card back before, they cannot say—"oh, that was sold before, and then you having made a card back of a different material, that will not protect your patent." That is nothing. They must show that the article made before had the same properties as that in respect of which the patent was granted. By and by you will have to say, whether that article which was sold under the denomination of Hancock's patent leather (for that is the only article which has been introduced or talked of, as far as I recollect at present, as being put in competition with the plaintiff's patent article), was an article having the properties and qualities of that which the plaintiff claims as his patent article. It is very remarkable, gentlemen, certainly, in a case of this sort, that now that we have heard evidence upon it for three whole days, not one question has been asked of any one witness, as to whether it had those properties or not, as far as I recollect. You will see, when I read the evidence, that no witness was asked, nor did any witness volunteer the statement, that the article which was so made by Hancock and sold by him had the properties for which this patent was granted. Now if it had not, it cannot be put in competition with this; if it had, then was it known and in use? That would involve another question. Now, in the first place, was it known as an article having those properties? Did any person know what he was buying? They say, "Yes, I knew I was buying Hancock's patent leather." What was Hancock's patent leather? Why, he would look to Hancock's patent and specification, and would he find in Hancock's patent and specification that he was buying an article having the properties for which the plaintiff has taken out his patent—his patent being for giving an elastic bed to the teeth of cards by the application of India rubber? Would any person buying Hancock's patent leather suppose he was buying that? The patent itself distinctly shows, according to the chemical evidence we have had, that such an article could not be produced by that patent; that if that patent were applied to the manufacture, it would destroy the elasticity of the India rubber, and such an article could not be produced by it. Therefore, if they supposed that they were

The old article must have the same properties as the patent article,

and have been known and in use.

*Cresswell, J.,
to the jury.*

buying that article, made under that patent, they certainly could not suppose that they were buying an elastic bed for the teeth of their cards. Were they, in fact, buying an article of that sort, and how do they attempt to show now that they were? That will be for your better judgment, but it seems to me by a very singular sort of evidence. They have called several gentlemen before you who prove, that by analyzing small portions of it, they find certain ingredients. They find in the inner cloths India rubber as a cement for the cloths. But they find something on the outside also. The cloth was composed of the one as much as of the other; and they do not tell you what was the effect of the whole upon the card. They are not asked. Now, if we are to take it as an article made under Macintosh's patent, the inner cloths might be cemented according to Macintosh's patent; but was the article when turned out as patent leather an article made under Macintosh's patent? What had Macintosh's patent to do with that colouring matter which was on the outside—the ochre, the oxide of iron, and the carbonate of lime? However, what did these people suppose they were purchasing? There is a curious fact about that, that Hancock himself does not appear to have known what he was selling, because he states he said, at the last trial, and believed he said truly (of course, we must take it, that, at the time he was stating it, he supposed he was stating truly), that that article was made according to his patent, and he says, "I have discovered since by accident (and I now have a memorandum book showing the manner in which I made out my invoice to Mr. Hemmingway, who bought it), that it was not made according to my patent, but according to something else." Why, gentlemen, if he did not know what he had sold in 1827, was it a thing in known use when this patent was taken out, or had it been thrown aside and abandoned? But did he ever sell it in that state? That is coming back to the first point—was it an article that could be placed in competition with the plaintiff's? Had it those properties which are the only properties in respect of which the plaintiff's patent has been granted? Then, with respect to the extent of the use, we have it in evidence that Mr. Dyer had some for the purpose of making cards to clothe an engine for Messrs. Birley, and that Mr. Hemmingway had the quantity mentioned, which you shall hear more particularly by and by, for the purpose of making some on his own account, and some to make up for others, and it appears they were supplied to several different persons. One firm, I think, had three or four sets; none of the others appear ever to have had it a second time. That was in 1827, and though there is a great deal of looseness in the dates given by the witnesses—and certainly, if dates are important, it is a thing very much to be deplored in a court of justice that witnesses should be so inac-

curate in their statements—yet I think we have pretty good A.D. 1842. evidence from Mr. Hancock himself—for he referred to the dates in his books—when these things were sent out; and it appears that the whole took place between July, 1826, and December, 1827. It does not appear that, from that time downwards, any more was called for, that any more was ever used for that purpose, or that any cards were constructed of those materials after the year 1827. Then even supposing that that article did embody the principle of the plaintiff's, so as to present to persons using it the properties, qualities, and advantages in principle of that article which the plaintiff makes, the question for you will be, whether that user is not to be considered rather in the nature of an experiment than of any public use of the article, so as to deprive the plaintiff of the fruit of this discovery in respect of this manufacture? Now, gentlemen, upon that I would rather you should take the opinion of others than mine, and therefore I will take leave to direct your attention to that which has been said by other judges upon that subject; and I do this the more particularly, because I believe that the direction I am now going to read to you was confirmed afterwards on further consideration by the court out of which the record came. In an action respecting some manufacture of India rubber, a few years ago, my Lord Chief Justice Tindal addressed the jury in this manner: "It will be for the jury to say, whether the plaintiff's invention was or was not in public use and operation at the time the patent was granted." Now, in considering that you will bear this in mind, that so far had that escaped the recollection of the very man who made it, that in 1840, when examined in court and upon his oath, he could not tell how it was made. But now he has corrected himself by reference to his books and by the assistance he has derived from a chemical analysis. That question being debated in the court above, my lord again said—"The question raised for the jury was this, whether the various instances brought forward by the defendants amounted to proof, that, before or at the time of taking out the patent, the manufacture was in public use in England, or whether it fell short of that point, and proved only that experiments had been made in various quarters and had been afterwards abandoned. This question is, from its nature, one of considerable delicacy. A slight alteration in the effect of the evidence will establish either the one proposition or the other, and the only proper mode of deciding it is, by leaving it to the jury. On the present occasion they heard the evidence patiently, and appeared to apply it with intelligence, and we see no reason to be dissatisfied with the conclusion at which they arrived." (*Ante* 519.) The direction of another learned judge, Mr. Justice Patteson, in another court, was very

If a user be limited and abandoned, the question will be, whether it was not by way of experiment.

*Cresswell, J.,
to the jury.*

similar, pointing out the distinction between experiment and public use as the criterion by which you are to be guided. So much for that which is the second issue raised upon this record.

The third issue is much wider; the defendants say, "that the alleged invention was not nor is a new manufacture within the meaning of the statute concerning monopolies." Now that is put to me as a question of law. It is raised by the Solicitor General as a question of law, in order that I might decide upon it as a matter of law, and that he might take an exception to my ruling if it should be against him, so as to carry the question to another and superior court. Gentlemen, I gave the case the best attention that I could then. I have given it more attention since, and I am confirmed now on further consideration in the opinion I then expressed, that there is sufficient of a new manufacture in this case to justify and maintain the patent that has been granted. I think that there is a new principle developed, carried out, and embodied in the mode of using that principle, and in availing himself of that which is sufficient to sustain the patent right in this case; and that, gentlemen, disposes of a great many of the objections of which notice was given, that it was not a new manufacture. Then the notice goes on to state the reasons why it was not—that the supposed invention was not nor is the subject-matter of a patent for a monopoly—and then we come back to the second plea again (and this shows the inconvenience of having the notice in this form). After objecting, in the first instance, to the want of novelty, they say, that long before the granting of the letters patent, fillets or sheets were made by uniting plies or pieces of linen, cotton, or other like cloth together, by a solution of caoutchouc, being cemented by such solution, and being of the same manufacture, and cemented in the same manner as alleged in the specification. That goes to the question of novelty. The mere fact of their being cemented together, no doubt, was known before. Nobody ever disputed that. Then they go on to say, that letters patent were granted to Hancock, and that large quantities of artificial leather manufactured under that patent were sold. Now, it is very curious that the case made to-day is, that the leather was not made under Hancock's but under Macintosh's patent, the probability being that it was a combination of the two. The interior was made according to Macintosh's patent, by cementing pieces together with a thin solution of India rubber, and the exterior was made by Hancock's, so as to give it rigidity and firmness. Then they go on to say, that the letters patent granted to Hancock are expired, and that it is now the common right of every subject to use India rubber, and its solution, or cement, combined with cloth or any other fibrous substance, in any way, for any purpose to which leather before

*The tests of a
new manufac-
ture.*

the grant of that patent had been commonly applied. Hancock's A.D. 1842. patent never prevented that, therefore that consequence does not follow from the expiration of Hancock's patent. But—as has been said, I think, with great propriety by the learned counsel for the plaintiff—if they like to make card backs according to Hancock's patent, let them. The plaintiff does not object to their doing that.

Then the defendants further say, that the plaintiff did not particularly describe and ascertain the nature of his alleged invention, and in what manner the same was to be performed, according to the meaning of the letters patent. Now that is a question for the jury. It is a question for the jury, whether he has given such a description of his invention, and of the manner of carrying it out, as will enable a workman of competent skill in that line of business to act upon it. And, gentlemen, this objection to want of clearness is expanded certainly to a very great degree in this notice. It is objected that the specification does not describe the alleged invention truly and sufficiently, but is insufficient, and ambiguous, and unmeaning, in the following respects:—in not stating or showing with certainty how or when the brown holland cloth is to be cemented or annexed to the India rubber—whether after or before the wire teeth have been inserted through the India rubber; also in that the specification does not describe truly and sufficiently how the brown holland is to be used (that is very much the same thing); also, that the claim of invention in the letters patent makes no mention of any use or application of linen cloth. The claim of invention in the patent is an improvement in making cards. It is not necessary that it should be there. The specification must be taken altogether, and you find most distinctly he speaks of using linen cloth. Then again it is objected also, “that the specification does not particularly describe and ascertain the nature of the supposed invention, but merely says so and so, and does not with sufficient particularity or distinctness say what new invention or manufacture is claimed by the plaintiff.” If that is a question of law, I must say I think it does not distinctly. I cannot read it without seeing that he says, “I declare the nature of my invention to consist in the application and adaptation of the material known by the name of caoutchouc or India rubber as a substitute for the fillets or sheets of leather, which are commonly used in the construction of ordinary cards, and thus giving a superior elasticity and durability to such cards.” I cannot help thinking that he states very clearly and explicitly what he claims, and as to his not having sufficiently described the mode in which that is to be carried out, that is a question of fact for people of competent understanding in the matter to prove. You have had a great variety of witnesses before you on that subject—on one side certainly—

Cresswell, J.,
to the jury.

and you will see whether it is the case or not when I come to read the evidence; but I do not remember that any person called for the defendants was asked, whether he would have any difficulty in making a card according to the description given of the process in this specification. Now, gentlemen, with respect to that, I think I was called on to express some opinion as to whether the plaintiff claimed as an essential part of his patent the application of linen, but I cannot help thinking there is some little confusion in the use of the term, "what he claims as an essential part of his patent." He claims as distinctly as possible the application of India rubber as a substitute for leather in making the backs of cards in order to get an elastic bed; that is what he claims, and there is nothing about the cloth in that. But it is not sufficient that a man should claim a principle. He must add to it in his specification a mode of working out that principle practically, and that he does now, for you will find he recommends as the best mode of working that out the application of the cloth, but he does not profess to say it cannot be done without. If he had said, it cannot be done without, I should have thought he would have said the linen was essential to the working out of his principle. He says, however, that it is best worked out with that, not that it cannot be done without it. If he had said it cannot be done without it, and it could be done without it, he would have taken upon himself to assert a fact which might have misled the public—therefore he did, I think, wisely in not doing so. He says, "the best mode of doing it that I know of, and that information I am bound to give to the public, is, by the application of cloth." He does not take upon himself to say that that is essential. Now upon that subject I will just point out to you what has been the general rule on the subject of these specifications, to show what information a person must give to the public, because if a man knows a better mode than that which he states to the public, that would be very unfair and wrong, and his patent would be vitiated by it. For instance, in the case of *Turner v. Winter* (*ante* 77), it was held a patent is void if the specification is ambiguous, or gives directions which tend to mislead the public; as, for instance, if it states that by one process three things may be produced, and the process fail as to any one, or if the specification directs the same thing to be produced in several ways, or by several different ingredients, and any of them fail: so if the plaintiff had taken upon himself to recommend here, as a mode in which it might be done, that it might be made with cloth, or that it could not be made without, he might have misled the public. He says, it may be made with—and he does not say whether it can or cannot be made without. Then again, in another case it is said—"a patent is void if the specification omit any ingredient, though not necessary for the composition

The specification must give the best mode known to the inventor, and must not mislead.

of a thing, for which the patent is claimed, as a more expeditious mode of producing the manufacture." It cannot be said that this specification is open to that objection, for here he has told them the best mode of doing it, and has introduced every ingredient necessary. In another case the specification stated that the cloth might be made of any suitable material, the patentee knowing from experiment at that time that one material and no other would answer; and the patent was held to be bad, because he had only said, "I prefer it to be made of this material," when he knew that no other would answer. There is no proof that the plaintiff knew that no other than the mode described would answer—on the contrary, it is proved that it may be made without the cloth. Then again, in another case, an invention for giving paper an enamel, the specification was held to be insufficient, because the party did not give the best information in his power as to the ingredients and the mode of doing it. But here the party has given the best information, and has not taken upon himself to say, no other mode would do; therefore, he has excluded nothing. I say, he does not make that essential, but that he gives to the public the best information that he himself has. Then, gentlemen, we come to another objection—I really do not know what plea it applies to—that the invention claimed by the patent is not of any public use or benefit. It is supposed that that may be a question under the "new manufacture." I entertain great doubts upon that, because a thing may be a new manufacture, and perhaps may not be of any public use or benefit. However, it is said here that the invention claimed by the said letters patent is not of any public use or benefit. It has been suggested that that question might more fairly be raised under a plea, stating it was injurious to the public. There is no allegation here that it was. But, however, it would be as well, perhaps, that you should take into consideration the question, whether the invention was of any public use or benefit. I do not think the plaintiff would raise any objection to such a question being submitted to you. Then it goes on thus—"and that India rubber uncombined with cloth, or other fibrous substance, is not a useful or sufficient substitute for the fillets or sheets of leather, used in the construction of ordinary cards, and is useless for the backs of such cards." I really do not understand to what that applies—I do not understand how it is raised. Certainly, if, owing to my ignorance on that subject, this is a pitfall in which I may be caught in this case, they have laid it with success, for undoubtedly I do not know how that question fairly arises upon this record, because, looking at the specification, I do not find that he says it is to be made without linen. On the contrary, his mode of doing it is with linen. He does not say that it cannot be made without, but his mode of doing it is with. He intimates an

The want of utility not admissible under the plea denying the invention to be a new manufacture.

*Cresswell, J.,
to the jury.*

opinion that if people choose, after it is made, to take the linen off, and fit it by cement on to the cylinder, that may be done. The justice of that opinion is a matter of controversy, as to which you have had evidence called on both sides, but there is one piece of evidence given on the part of the plaintiff, which has not been met by any evidence of the same quality on the part of the defendant. The plaintiff produces a roller, which he says has been used, and they do not show on the other side any experiment made which has failed.

*As to the last
plea.*

Then we come to the last plea, which is this—"The defendants say, that sheet cards and top cards were long before the time of the making and granting of the letters patent, and from thence hitherto have been cards in public use and exercise for the purpose of carding wool, cotton, silk, and other substances, within the meaning of the letters patent, and the supposed improvements therein mentioned, and during that time were and have been the cards and instruments principally used for that purpose, and that the supposed invention was, and still is, unfitted for and useless in respect of sheet cards and top cards." Now the plaintiff has not contented himself with denying one part of that plea, but he has replied to both parts. He puts in issue the whole of it, and says, that sheet and top cards were not principally used for carding, and that this invention was fitted and useful for that purpose. Therefore the defendants, in order to succeed upon that issue, must make out, not only that this invention or alleged invention was unfit for sheet cards and top cards, but must make out that they were the cards principally in use. Now, according to the evidence, the cards principally in use beyond all question were fillet cards; therefore, on that ground they would fail, even supposing that there were any question remaining unsatisfactorily disposed of in your minds respecting the fitness of this article for sheet cards and top cards. I do not see upon the evidence that there is any great difference in the value of them for the one purpose or for the other. This is not said to be merely cards without cloth backs; this applies to the whole of the invention—that with the cloth back it is not fitted for sheet cards or top cards.

Those are the various questions, gentlemen, which you will have to try: whether the defendants have imitated or counterfeited the whole or any essential part of that which the plaintiff claims. You have to dispose of those two questions, ascertaining whether this is a new invention—first, whether any thing corresponding with it was ever made before; secondly, whether, if ever made, it was in use and operation publicly, or was a failing experiment—a trial which was abandoned. The third question I have disposed of myself, with the exception of that part which you may take into your consideration, namely, whether the invention was of any public use or not? because it is said that it

is included in that plea, and although I doubt it, I would rather A.D. 1842. you should consider it as involved in it in order that there may be no failure on my part to leave any thing to you which I ought to have left, so as to render useless the investigation we have been so long engaged in. Then the fourth question is, whether the plaintiff in his specification gave such a description of his invention as would enable a workman of competent skill to act upon it;—and the fifth is, whether sheet cards and top cards were principally in use; and whether, if they were, this material was fit to make such cards. Those are, as distinctly as I can lay them before you, the questions which you have to try. [The learned judge, after reading over and commenting on the evidence, concluded as follows:] Your attention, as I told you before, will be directed to the particular issues raised, which are—first, whether one or both of the articles sold by the defendants were such that, in making or selling them, they did, directly or indirectly, do, make, use, or put in practice, the said invention of the plaintiff, or any part of the same, or in any wise counterfeit, imitate, or resemble the same, or make any addition thereunto, or subtraction from it, whereby to pretend themselves to be the inventor or inventors? Then, the next question that you have to determine is, whether it was a new invention as to the public use and exercise thereof? That, again, involves the two propositions I mentioned before; first, whether the article sold before was of such a nature as to embody in it the principle and valuable qualities of Walton's article? If it was not of such a nature, then there is nothing to impeach the plaintiff's claim; if it was of such a nature, then there follows this question—whether it was a new invention as to the public use and exercise thereof? And, in determining that question, I beg you to bear in mind those opinions I have read as having fallen from other judges, rather than state to you any opinion of my own. With respect to the third plea—that the invention was not nor is a new manufacture, as far as that involves the question whether it can be considered as within the statute, that is a question for the court, which I have already determined. As far as it depends upon the question of utility, that, gentlemen, is a question for you. Then the fourth is, whether the plaintiff, in his specification, particularly described and ascertained the nature of the invention and the manner in which the same was to be produced? That again is for you, bearing in mind the evidence which has been given as to the power of a competent workman to work from the specification which has been put in. As to the fifth plea, whether these top cards and sheet cards were principally used for the purpose of carding, and whether this invention was unfitted for them?—that also is for you, and I think the defendant ought to make out both parts of

that proposition, for both are put in issue. They must make out both that top cards and sheet cards were principally used, and that Mr. Walton's alleged invention was insufficient and inapplicable to those purposes (d).

Verdict for the plaintiff (e).

GIBSON & CAMPBELL'S PATENT.

Title. Letters patent 19th November, 1836, to John Gibson and J. G. Campbell, for "a new or improved process or manufacture of silk and silk in combination with certain other fibrous substances."

Specification. I declare (a) that the nature of our said invention consists—First, in a part of our process by which we discharge the gum from that peculiar kind of silk denominated silk waste, when the same is in the state of the sliver or rove. Second, in a part of our process, by which we dye silk waste when in the state of sliver or rove. Third, in a part of our process, by which we spin yarn from dressed or heckled silk waste of long fibres, either in the gum or discharged. Fourth, in a part of our process, by which yarn from silk waste with long fibres may be spun in combination with flax of a similar length of fibre. Fifth, in a part of our process, by which yarn from silk waste with long fibre is spun in combination with wool. Sixth, in the application of our improved process to the throstle machine, on

(d) At the conclusion of the summing up, and before the jury retired, Sir W. Follett, S.G., on the part of the defendants, excepted to the direction of the learned judge, in that it had been left as a question for the jury, whether what had been done by Mr. Hancock in 1826 and 1827 was an experiment, whereas upon the evidence the question of user by way of experiment did not arise; that it ought only to have been left to the jury to say, whether they believed the evidence of the witnesses, because if that evidence was true, a public user of the article was proved; he also excepted to the direction of the learned judge, expressed in the words of Chief Justice Tindal; also, in that the jury had been directed that the above patent might be valid, though extending to every mode of applying caoutchouc to the backs of cards, whereas a party could not have a patent except for the particular mode of applying it, and if that mode failed, the patent was invalid.

No decision took place on these exceptions; a compromise having taken place after the proceedings in the following case.

The Queen v. Walton.

This was a *scire facias* to repeal the above pa-

tent of the defendant: the trial took place at the sittings after Trinity Term, 1842, when there was a verdict for the crown on the issues of novelty. In addition to the evidence of user under Hancock's patent, adduced from the defendants on the two preceding trials, the statement, ante 585, in the 'Journal of the Royal Institution,' was given in evidence on the part of the prosecution.

The court of Queen's Bench granted a *rule nisi* for a new trial, but the rule was not argued, a compromise having been made, whereby all proceedings on the bill of exceptions in *Walton v. Bateman*, and in some other actions standing for trial, were stayed.

(e) The jury found a verdict for the plaintiff on all the issues, and in reply to a question from the learned judge with respect to their finding on the issue as to public use, said, they were of opinion that the article made and sold by Hancock in 1826 and 1827, was not the same as that of the plaintiff.

(a) The specification is expressed to be enrolled by Gibson, in behalf of himself and his patentee.

the principle of the long ratch, for the new and useful purpose of spinning silk waste. Seventh, in certain improvements effected by us in the throstle machine, by which its utility in spinning silk waste is greatly augmented. Eighth, in the application of water to silk waste with long fibres in the process of spinning with the long ratch.

Having thus described the nature or leading characteristics of our invention, it is desirable, before we enter into the practical details of them, to give a brief outline of the methods heretofore adopted for spinning silk wastes. * * * (b)

Having now given the necessary details of the manner in which our invention is to be performed, we desire it to be understood, that we disclaim those parts of the process or mechanism which were, or may have been, previous to the granting of our patent, well known or in use for the same purposes, but we restrict our claims to the eight several heads of invention mentioned in the early part of this specification, all of which we believe to be new and of great public utility. In witness, &c.

GIBSON & CAMPBELL v. BRAND.

Cor. Sir N. C. Tindal, C.J.

In the C.P.
Trin. V. 1841.

This was an action for the infringement of the preceding patent, and the declaration, after the usual averments, assigned as a breach, "that the defendant directly or indirectly made used and put in practice the said invention, and every part thereof, and therein counterfeited, imitated, and resembled the same, and every part thereof." *Declaration.*

The defendant pleaded—1. Not guilty. 2. That the plaintiffs *Pleas.* were not the true and first inventors of the alleged invention. 3. That the said invention was not a new invention. 4. That the said invention was and is of no use, benefit, and advantage, to the public. 5. That the said instrument in writing was and is as follows (setting it out); that no other was enrolled; and averring, that the said instrument in writing does not particularly describe and ascertain the nature of the said invention, and

(b) It is unnecessary to give the specification at length. It was designated by the Lord Chief Justice as a confused statement of processes, designs, objects, and means, and the above must be added to one of the many instances in which the fruits of an invention of great value have been perilled, if not altogether lost, by the careless and inartificial manner in which the specification is prepared. The concluding sentence is that given above, with respect to which it may be as well to

observe, that the specification should of itself point out or make clear by obvious intendment what parts have been in previous use; it is not sufficient to leave this to be supplied by information derived from other sources.

In the subsequent case of *The Queen v. Nickels*, Lord Denman, C.J., directed a verdict for the crown, on the ground of the insufficiency of the specification in this respect.

in what manner the same is to be performed. Upon these pleas issues were joined, the replication to the fifth plea being, that the said instrument in writing, in that plea set forth, does particularly describe and ascertain the nature of the said invention, and in what manner the same was and is to be performed. No question turned upon the notice of objections.

Sir F. Pollock, Bompas, Sergt., M. D. Hill, Hoggins, and Corrie, were counsel for the plaintiffs; Sir W. Follett, Kelly, Channell, Sergt., and J. Henderson, for the defendant. The following portion of the summing up of the learned judge will sufficiently explain the principal features of the case.

The summing up.

The publisher of that which is not in use may not be the true and first inventor.

Sir N. C. TINDAL, C. J., to the jury. This is an action for the infringement of letters patent granted to the plaintiffs, and the defendant first says, that he has not been guilty of any infringement, and before he could be called upon for an answer, the plaintiffs must satisfy you that the defendant has in some mode or other infringed this patent. The defendant next says, that these letters patent have not been granted to the true and first inventors, which you are aware is a condition required by the statute. Now, a man may publish to the world that which is perfectly new in all its use, and has not before been enjoyed, and yet he may not be the first and true inventor; he may have borrowed it from some other person, he may have taken it from a book, he may have learnt it from a specification, and then the legislature never intended that a person who had taken all his knowledge from the act of another, from the labours and assiduity or ingenuity of another, should be the man who was to receive the benefit of another's skill. There is some distinction, although perhaps not a very broad one, between the plea which alleges the plaintiffs were not the first and true inventors, and that on which I conceive the principal question between the parties will turn—the third in order, viz. whether the subject-matter of this patent was known in England at the time the letters patent were granted. It is quite clear, if on the evidence you have heard you are satisfied that this which is alleged to be a discovery by the plaintiffs had been publicly known and practised in England, there is an end to the validity of the patent. It would not be sufficient to destroy the patent to show, that learned persons in their studies had foreseen, or had found out this discovery, that is afterwards made public, or that a man in his private warehouse had by various experiments endeavoured to discover it and failed, and had given it up. But if you perceive on the evidence, that the thing which is now sought to be protected by the patent has been used, and for a considerable period, and used so far to the benefit of the public as to be sold to any body that thought proper to purchase it of those who made it, then it becomes a material question, whether such mode of user is not in your judgment a public

The speculations and suggestions of learned men will not vitiate a patent, nor experiments in private, or abandoned. But if the article has been sold, it is a question for the jury, whether that is a public user.

using of the article, of the process, or of the invention, before A.D. 1841. the letters patent were granted, and therefore you will apply the evidence when you come to it, subject to such an explanation, not giving a force or efficacy to any attempts that have been made towards the discovery which the plaintiffs set up, but which have failed and been abandoned, and rested indeed only in experiment, but at the same time giving full effect to such evidence as has been brought before you that tends to show that, by other persons, on various occasions, the article has been made and the process been pursued which is now sought to be protected, and has been sold to such of the public as have thought proper to come forward and purchase.

Then the defendant says—the invention is of no utility; but it does not appear to me that can, on the present occasion, afford you any considerable trouble. No doubt there is evidence enough to show that the result of this process does produce an article that is of considerable beauty and value; the demand that is made for it, indeed, would seem to establish that.

Then the defendant objects to the specification. I should tell you, as far as there are any objections in point of law to the specification, I do not propose to trouble you with them on this occasion; all that I mean to leave to you is the question of fact that is raised for your determination, namely, whether it is so worded, and such explanations are given in it, that a person of a sufficient degree of understanding on the particular subject could carry the provisions of the specification into effect, and obtain the proposed result. The specification ought to be so clearly worded as to lead without any doubt or difficulty to that result, because it is the price that the man who takes out his patent pays to the public for their being so long kept out of the enjoyment of the commodity or manufacture that is protected; the price he pays is, that he will lodge such an account of his own discovery and invention as will enable the public at the expiration of the fourteen years, to have as free and unreserved use of the invention as he himself. Therefore, every man who is an honest man is bound to pay that price justly and fairly, and to word his specification, which he is obliged by the terms of the patent to enrol in the Court of Chancery, in such a way as to be clear from all doubt. Now, I cannot say that I think this a very clear specification, I cannot read through these eight different heads, which I understand to be the eight different points that are sought to be protected by the patent, without thinking there has been a mixture rather of object and purpose or design, to which the party means to apply his patent, with that which is more strictly and properly the process by which the object is meant to be obtained; the mixing them together, and not keeping them separate and distinct, tends very much to obscurity in the document itself.

Requisites of the specification.

The objects of the invention, and the means whereby those objects are to be attained, should be kept distinct.

Sir N.C. Tindal, C.J., to the jury. The only person who proves the invasion of the patent is Rolleston, who says, "I bought the silk from the defendants. They called it patent silk, and Mr. Miller, their manager, called it so to me; and in the invoice it is written, patent fringe boiled off at 10s. 6d." He says, "it was yarn similar to that I bought at Mr. Campbell's, but 5s. cheaper in the pound; it was not so good as what the patentees furnished. Campbell and Gibson's was always taken in preference to theirs if we had it in hand." You see what was actually produced, and it rests entirely on this man's evidence, and on the affidavit put in by the plaintiffs that was made by the defendant, in which, in the Court of Chancery, he says, he had been in the course for the last two years of using and making the silk which he was then selling, because it was done openly, and they had never taken any notice of it; and also, that he did not think that their patent was an available patent—not, in effect, denying that he was selling what was then manufactured, but defending it on the ground that it was not protected by the letters patent. Upon that you must say, whether you are satisfied that the defendant has violated this patent at all. If they have themselves sold an article of exactly the same fabric, made in the same manner as that for which the patent was taken out, such sale may be considered as a using of the invention within the terms of the declaration, and so you would say, if you are satisfied on the evidence, by your verdict. Next you must say, whether the plaintiffs are the true and first inventors, and then, whether this is a patent which has been taken out for a new manufacture; that is, either for a new result, or a new mode of obtaining a result, although it would be upon an old process and with new combination, and producing new results. Then comes the question of utility, about which you need hardly trouble yourselves; and lastly the question, whether this specification is so worded, and with that accuracy of description, as to enable a person versed in the matter, and of competent intelligence, to perform the object of the patent.

The sale of an article made according to the patent, is a using of the invention.

Verdict.

The verdict was as follows—The jury are of opinion, that the invention is not new, but an improved process—not a new combination; that the defendant is guilty; that the invention is useful, and that the specification is sufficient.

Sir N. C. TINDAL, C. J. : The verdict will be for the plaintiff on the first, fourth, and fifth issues; on the second and third issues there is the special finding, which the court must mould as well as they can.

IN THE COMMON PLEAS.

Cor. Sir N. C. TINDAL, C. J.; *Coltman*, J.; *Erskine*, J.; *Cresswell*, J. *In the C. P., E. T., 1842.*

Channell, Sergt., obtained a rule calling on the plaintiffs to show cause why the verdict should not be entered for the defendant on the second and third issues, or why there should not be a nonsuit (c), or why the judgment should not be arrested on the fifth issue; against which cause having been shown, the court delivered the following judgments.

Sir N. C. TINDAL, C. J.: With respect to the question, why the verdict should not be entered for the defendant upon the general issue, we have already in the course of the argument given a sufficient answer. The breach alleged in the declaration is, that the defendant infringed the patent by making, using, and putting in practice, the plaintiffs' invention; and the evidence is, that an order was given in England, which order was executed in England, for making articles by the same mode for which the plaintiffs had obtained their patent, which articles were afterwards received by the defendant (d). This is quite sufficient to satisfy an allegation that he made those articles; for he that causes and procures to be made, may be well said to have made them himself.

With respect to that part of the rule which calls on the plaintiffs to show cause why the judgment should not be arrested, I am of opinion, that no sufficient ground has been made out for that purpose. It is to be observed that the last plea contains an allegation, that there was no other specification enrolled by the patentees than that which is set forth in the plea. Then it goes on to allege, that the specification is not sufficient, on which there is an issue taken in fact, that it was sufficient. The parties go down to trial upon it, and the jury find that it was a sufficient specification, meaning sufficient in point of fact, that a workman of competent skill and ability, pursuing the directions in the specification, would understand them very well, and might produce the result which the patentees intended. That is, therefore, a plea which is put in to the whole of the

An issue in fact on a plea being found for the plaintiff, the defendant cannot resort to matter not in issue and admitted in that plea to arrest the judgment.

(c) With respect to the nonsuit it was contended on the part of the defendant, that the particular breach laid in the declaration was not supported by evidence that the defendant had sold silk known by him to have been spun according to the plaintiffs' invention—that a vending ought to have been laid in the declaration. See the evidence, ante 630, and the judgment, *infra*.

(d) There would appear to be some discrepancy between this statement of the evidence, and the summing up of the learned judge to the jury (ante 630), where he directs that the sale of an article may be considered a using of the invention, that is, evidence whence the practising of the invention, the subject of the patent, may be inferred.

Judgment.

To raise the question of the insufficiency of the specification in point of law, the defendant should, after setting out the specification, and averring no other to have been enrolled, aver the letters patent to be void.

declaration, and the issue joined on it is found against the defendant. I have heard no authority cited to show, that where a plea is found false in fact, the defendant may afterwards avail himself of another part of the plea, which was not put in issue, and on the allegation, that the facts alleged in that other part of the plea are before the court, arrest general judgment for the plaintiff(e). If the defendant had intended to avail himself of the want of a proper specification in point of law, or to have contended that such specification would not support the patent which had been granted to the plaintiffs, he might, after alleging that such was the specification, and that no other specification had ever been used or filed by the plaintiffs, have stated in his plea, that the patent was therefore void in law; and then the question would have been raised upon the record, on which, if the defendant was wrong in his allegation, he would have been compelled to pay costs to the plaintiffs upon a demurrer, or if the defendant was right, he would have received them upon judgment being given in his favour. But now, after having put in a plea which goes to the whole right of action, which plea is found to be false in fact, upon an issue raised upon it, he seeks to use that plea—a confession in that plea—not merely for the purpose of the plea itself, but as a general answer to the right of the plaintiffs to recover. I observe the plea contains two allegations, one of which is, that this was the only specification that was put in by the plaintiffs; and another is, that it is not a sufficient specification for the purpose. True it is, when an issue is taken by the plaintiffs on one of those allegations, they do admit the other, viz. that it was the only specification; but then, they only admit it for the purpose of that plea, and the defendant has no right afterwards to use it as an argument against the plaintiffs, that they have virtually admitted, for all the purposes of the action, that there is no other specification than that which is put upon the record. I think, therefore, upon the strict legal notion of a motion in arrest of judgment, which proceeds upon the ground of a deficiency in the plaintiffs' right of action, that the defendant has no right, under the circumstances, to call upon us to stay the judgment of the jury; and it is enough to say, that on motion in arrest of judgment, the matter ought to be made out clearly to the satisfaction of the court, because, if they are wrong upon it, the party has a remedy in a higher quarter.

As to the entry of the verdict on the special finding.

I come now to that which is the main and important question between the parties, that is, whether the defendant has, upon the finding of the jury, the right to have the verdict entered for him upon the second and third issues. The second issue in

(e) On this point, see the judgments of the court in *Walton v. Potter*, ante 598—613.

his case is, "that the plaintiffs were not the true and first inventors;" and the third issue is, "that it was not a new invention at the time of the letters patent." The jury gave in this finding—"That the invention is not new, but an improved process, and that it is not a new combination." They do, therefore, according to the plain meaning of these words, first find there is no novelty in the invention, that there is no new combination, and that there is no novelty in the process, but an improvement only. The question is, whether upon this finding, supposing it to be supported by the evidence in the cause, the jury have found these issues for the plaintiffs or for the defendant; and it appears to me, that the verdict ought to be entered upon these issues for the defendant.

Let us see what the patent is taken out for; and then, what is the plaintiffs in their specification have declared to be the nature of their discovery. The patent is taken out "for a new or improved process or manufacture of silk, and silk in combination with certain other fibrous substances;" taken out, therefore, strictly for a process. On the present occasion it is not necessary to go into the question (upon the view I take of his specification), whether a patent can be granted for a process, in the strict and proper sense of that term, or not.

Undoubtedly there is a very strong reason to suppose, if the specification is carefully and properly prepared, so as to point out, with great distinctness and minuteness, what the process is, that such a patent may be good in law. Such certainly was the opinion of Chief Justice Eyre (f), and such also appears to have been the opinion (carefully guarding against any abuse of that doctrine) of Lord Tenterden (g), who says—that "the subject-matter of letters patent, i. e. the word 'manufacture' as used in the statute of James, has generally been understood to denote either a thing made, which is useful for its own sake, and vendible as such, as a medicine, a stove, a telescope, and many others, or to mean an engine or instrument, or some part of an engine or instrument, to be employed either in the making of some previously known article, or in some other useful purpose, as a stocking frame, or a steam engine for raising water from mines; or it may perhaps extend also to a new process to be carried on by known implements or elements, acting upon known substances, and ultimately producing some other known substance, but producing it in a cheaper or more expeditious manner, or of a better and more useful kind." And then he goes on to observe, that the specification of a patent or a process should be definite and precise; that as to a process, the

*In the C. P.
E. T., 1842.*

A new process
may be the
subject of letters
patent.

(f) In *Boulton & Watt v. Bull*, 2 H. Bl. 468—500.

(g) In *The King v. Wheeler*, 2 B. & A. 350.

Judgment.

specification should state the time and degree of heat, or other particulars, that would apply to the particular subject-matter under consideration. Now, looking at the specification in this case, it appears to me, that this patent cannot be supported at law, because the plaintiffs have, in the course of it, claimed more than they are entitled to; for I cannot read the description that they give of their invention, and the parts of their invention, without understanding them to claim improvements that are made upon the machine, which is used for the purpose of producing the desired result. Dismissing all the different heads of process from our consideration but the sixth and seventh, I cannot understand those two articles or heads of the process, when I consider the other parts of the specification, but as claiming either an improvement upon, or a new combination of, the throstle machine, by which the work is carried into effect. That the plaintiffs mean to claim those eight several and distinct parts of the process, according to the argument of my brother *Bompas*, as all combined together making one process, I think is abundantly clear from the last words of the specification, where they desire it to be understood that they "disclaim those parts of the process or mechanism, which may have been, previously to granting our patent, well known." And then they go on to say, "but we restrict our claims to the eight several heads of invention mentioned in the early part of this specification, all of which we believe to be new and of great public utility." Therefore it is, that the plaintiffs are bound to show that each of those eight several distinct heads, into which they have divided the process, is new and of public utility. The specification begins first to describe the old method of working the silk waste; and then it goes on to say, "having thus explained the old or ordinary process of converting silk waste into yarn, I will proceed to describe our novel process, by which we produce our new or improved manufacture of yarn or thread." Claiming, therefore, as they must claim, a novelty in the case, whether it be a patent taken out for machinery, or taken out for a process only, if we were to stop there, when the jury have found that there was not a new process, but an improved process, although perhaps it would be a hard measure upon the plaintiffs, who call their manufacture, 'our new or improved manufacture;' still, I think, there might be some doubt even upon that finding, with those words alone in the specification, whether it could be supported. Further on, after describing some portion of the process and machinery, the specification proceeds thus—"Having now explained the nature of the drawing and roving machinery, which we have found to answer best, and the several processes of drawing and roving silk waste alone, and of silk waste in combination with wool and with flax, I will proceed to describe the spinning

If the patent be for a new or improved process, and the jury find the process not to be new but improved, *seem* that the patent is invalid.

machine, by which the rove is drawn or elongated into strands *In the C.P.* to be spun into yarn or threads." Now observe, he is about *E. T., 1842.* to describe a piece of machinery; he says, "The annexed drawings for the most part represent the well-known spinning frame, called a throstle, on the principle of the long ratch, as employed in the spinning of flax." "For the most part represents it." What is that but impliedly saying—"There is some part of that which I use, and which I am now about to describe, which is new and discovered by myself?" And he goes on, "which machine, combined with the improvements we have applied to it, we apply to the new and useful purpose of spinning silk waste of long fibres." Now pausing there only, I think it is impossible to read this without seeing that the party, who is now describing one of the heads of the process before set out, is claiming either a new improvement in the machine which he uses, or a new combination of the parts of that machine. A little lower down he gives the figures, by which he refers to the different parts of the machine. He tells you, "At N is a copper trough containing water, the application of which in this process is an important feature in our invention." Then he says, "The letters O O O are pressing rollers, which are made of wood, and are partly immersed in the water wherein they rotate, and by their continuous action convey the fluid to the nip of the brass bosses P P P of the drawing roller G." Adding, of the spindles Q Q Q, "which for our new process we place (as will be observed in the drawing) much nearer to the drawing roller G than has heretofore been practised." "The other parts of the machine not adverted to, being quite familiar to persons employed in this branch of manufacture, it will be unnecessary to explain." I confess, I feel it impossible to apply this language in any other way than as a substantive claim on the part of these patentees, either to a new invention or new combination of the parts of the machine, by which they carried their work into effect. Now the jury have, on the evidence before them, distinctly negatived both. They say, there is no new invention and no new combination. Unless one could see, on the evidence in the cause, that they were wrong, the matter must rest where it is. For my part, I can only say, that there was a great deal of evidence on both sides; every point was urged before the jury by the several parties, and the jury, after some considerable hesitation, came to the finding which I have stated. On the whole, therefore, I am of opinion—first, that their finding, coupled with the language of the specification, entitles the defendant to a verdict on these issues; and secondly, I also say, upon the evidence before me, that I cannot feel myself dissatisfied with the verdict.

Judgment.

The plaintiffs bound to sustain the novelty of each of the eight several heads set out in the specification.

COLTMAN, J. : I am of the same opinion. On the material question—viz. the third issue, I think the defendant entitled to have the verdict entered for him. It is said, this is an ambiguous finding, upon which no verdict can be entered; for I think it impossible to contend, that it is a verdict for the plaintiffs, whose allegation in this third issue it expressly negatives. It seems to me, that in order to sustain the issue, that this was a new invention, the plaintiffs were bound to show that it was new in each of the eight parts which are set out in the specification, and which are claimed as parts of their process. Unless each of them were new, the plaintiffs would not, in my judgment, be entitled to a verdict. I am not prepared to say, that an improved process may not be the ground of a patent; and if the jury, therefore, had simply found that it was an improved process, and had found no more than that, I should at least have been under some difficulty in saying, what the effect of such a verdict would be. But the finding of the jury must be taken altogether, and then it amounts to this, that though there may be some improvement in the manipulation or otherwise in the process by which this matter is carried on, there is neither novelty in the invention, nor novelty in the combination. Looking therefore at the verdict only, it seems to me a verdict in favour of the defendant upon the third plea. But we may look into the evidence for the purpose of seeing, whether it was probable that there really was such an improvement in the process as might by reasonable construction amount, in the eye of the law, to a new invention; because, if it had been so, I should have thought that might be a ground for sending the case down again to a new trial. And looking at the evidence with this view, I am not able to find any novelty in the process, which would warrant us in saying, that the jury must have meant, by finding it to be an improved process, that it amounted to any thing which might properly be the subject of a patent. It seems to me to be nothing more than the application of an old and well-known machine, without any material variation, to the spinning of silk waste, in what we may call the natural state, discharging the gum from it in the ordinary manner, and dyeing it by the ordinary process. The only thing in which there is any novelty, that I can make out, is, that the plaintiffs do not cut the silk into small and minute portions; that they dye it in a different stage of the process, and that they appear also to discharge the gum in a different stage of the process—but altogether in a mode before known and used by the public; there is no alteration, except in point of time, as to either of these matters. Comparing the finding of the jury with the nature of the process as proved by the evidence, it appears to me, that all the jury can have meant to say on the

subject is, that the plaintiffs have made some slight variation, *In the C. P., E. T., 1842.* by which a better article is produced, but without any novelty in the combination, or any novelty as to the construction of the instrument used. I see nothing in the evidence to induce me to come to a different conclusion from what the words of the finding by the jury naturally import; and upon the third issue, therefore, the verdict will be for the defendant.

The first issue has been already disposed of in the course of the case; and with respect to the motion in arrest of judgment, as the defendant obtains the verdict upon the third and main issue, I take it for granted, that he does not desire to have our judgment upon that point. I will only say, that I have not fully made up my mind on that point, if it were necessary to decide it, which it is not.

ERSKINE, J.: The first issue in this case has been given up by the defendant, and then we come to the question—how the verdict is to be entered up upon the second and third issues? The second issue is, whether the plaintiffs were the true inventors or not; and the third is, whether the invention itself was new. If we take the first branch of the finding by the jury, they have in distinct terms negatived that issue, and found it in direct terms for the defendant; but they have added something upon which the plaintiffs rely, as tending to show, that though in terms they have found the issue against them, yet that in substance they have found it for them; and that, therefore, the verdict should be entered for them. As I understand the argument on the part of the plaintiffs, it is this—that the jury did not mean to negative the plaintiffs' right in the strict and legal form; but they meant merely to say, that although the invention was not new, there was a new process, which, in point of law, might amount to a new invention; and therefore, that although the terms of the finding of the jury are against the plaintiffs, according to the terms in which the issue is couched, yet that, in point of law and substance, it is a finding in their favour; and therefore, that the verdict may still be entered for them; and the way in which I understand the case to have been argued is this—that looking at the evidence which has been given at the trial, and comparing the evidence given with the finding of the jury, the court may see the jury have in some sense found, that the plaintiffs had discovered an improved process in the manufacture of silk yarn, and that the evidence shows that the nature of the discovery was such as would entitle them to a patent; and therefore, that the mere language of the finding by the jury was not such as to exclude the plaintiffs from the verdict upon those issues. Now, it appears to me, upon comparing the finding of the jury with the evidence given in the cause, that the plaintiffs have not made out any such case of an improved process as would entitle them to a

A process, if leading to, or resulting in, a new manufacture, is the subject-matter of letters patent.

patent, as the inventors of a new manufacture. Although it may be true, that a party may have a patent for an improved process, under circumstances which would show that the improvement in the process really amounted to a new invention, and a new manufacture, within the terms of the act of parliament, I think the evidence in this case does not show, that here there has been any such improvement. The plaintiffs by their specification put their claim under eight heads, and inasmuch as they claim a patent in respect of the whole of those eight heads as forming eight different branches of one process, for the purpose of manufacturing silk yarn, or silk yarn in combination with wool or flax, it is necessary for them to show, that the whole of that process is, as they maintain it to be, new. Now it appears to me, whatever degree of novelty there may be in the process by which they discharge the gum from the silk, which varies from the ordinary process, inasmuch as it takes place at a different stage of the manufacture from that at which it was previously employed, or whatever novelty there may be in the dyeing, to which the same observation applies, yet if the substantial parts of the alleged improvements, as contained in the other heads of the process, are not new, so as to make them the subject of a patent, then the plaintiffs must fail altogether. Now, the third head is—"a part of our process by which we spin yarn from dressed or heckled silk waste of long fibres, either in the gum or discharged." The third head, therefore, does not include either of the first two, because it is put in the alternative—"silk, either in the gum or discharged." What, then, is the novelty of the process claimed by the plaintiffs as proved in evidence in respect of this third head? It appears from the evidence, that the process of spinning silk waste without cutting it had been previously practised—practised, it is said, in secret, and not made known to the public; and if that had been made out, I should have agreed with the learned counsel for the plaintiffs, that that would not have been enough. But it appears to me, that there is abundant evidence to show, that the yarn spun from silk waste in the uncut fibre had been manufactured to a considerable extent, and had been brought into public notice by sale, and after sale had been used for different purposes, though it appears not to have been brought to that state of perfection which would enable parties to apply it to the manufacture of articles, such as those that were produced from the silk yarn made by the plaintiffs. It had, for instance, been used in the manufacture of gold lace. There was, therefore, nothing new in the process of spinning silk yarn from silk in the long fibre, nor in the machinery upon which it was spun. And all that can be claimed by the plaintiffs is, that they were skilfully adapted a known machine to the preparation of materials previously known, by a process previously known,

subject is, that the plaintiffs have made some slight variation, *In the C. P.,* by which a better article is produced, but without any novelty *E. T., 1842.* in the combination, or any novelty as to the construction of the instrument used. I see nothing in the evidence to induce me to come to a different conclusion from what the words of the finding by the jury naturally import; and upon the third issue, therefore, the verdict will be for the defendant.

The first issue has been already disposed of in the course of the case; and with respect to the motion in arrest of judgment, as the defendant obtains the verdict upon the third and main issue, I take it for granted, that he does not desire to have our judgment upon that point. I will only say, that I have not fully made up my mind on that point, if it were necessary to decide it, which it is not.

ERSKINE, J.: The first issue in this case has been given up by the defendant, and then we come to the question—how the verdict is to be entered up upon the second and third issues? The second issue is, whether the plaintiffs were the true inventors or not; and the third is, whether the invention itself was new. If we take the first branch of the finding by the jury, they have in distinct terms negatived that issue, and found it in direct terms for the defendant; but they have added something upon which the plaintiffs rely, as tending to show, that though in terms they have found the issue against them, yet that in substance they have found it for them; and that, therefore, the verdict should be entered for them. As I understand the argument on the part of the plaintiffs, it is this—that the jury did not mean to negative the plaintiffs' right in the strict and legal form; but they meant merely to say, that although the invention was not new, there was a new process, which, in point of law, might amount to a new invention; and therefore, that although the terms of the finding of the jury are against the plaintiffs, according to the terms in which the issue is couched, yet that, in point of law and substance, it is a finding in their favour; and therefore, that the verdict may still be entered for them; and the way in which I understand the case to have been argued is this—that looking at the evidence which has been given at the trial, and comparing the evidence given with the finding of the jury, the court may see the jury have in some sense found, that the plaintiffs had discovered an improved process in the manufacture of silk yarn, and that the evidence shows that the nature of the discovery was such as would entitle them to a patent; and therefore, that the mere language of the finding by the jury was not such as to exclude the plaintiffs from the verdict upon those issues. Now, it appears to me, upon comparing the finding of the jury with the evidence given in the cause, that the plaintiffs have not made out any such case of an improved process as would entitle them to a

A process, if leading to, or resulting in, a new manufacture, is the subject-matter of letters patent.

patent, as the inventors of a new manufacture. Although it may be true, that a party may have a patent for an improved process, under circumstances which would show that the improvement in the process really amounted to a new invention, and a new manufacture, within the terms of the act of parliament, I think the evidence in this case does not show, that here there has been any such improvement. The plaintiffs by their specification put their claim under eight heads, and inasmuch as they claim a patent in respect of the whole of those eight heads as forming eight different branches of one process, for the purpose of manufacturing silk yarn, or silk yarn in combination with wool or flax, it is necessary for them to show, that the whole of that process is, as they maintain it to be, new. Now it appears to me, whatever degree of novelty there may be in the process by which they discharge the gum from the silk, which varies from the ordinary process, inasmuch as it takes place at a different stage of the manufacture from that at which it was previously employed, or whatever novelty there may be in the dyeing, to which the same observation applies, yet if the substantial parts of the alleged improvements, as contained in the other heads of the process, are not new, so as to make them the subject of a patent, then the plaintiffs must fail altogether. Now, the third head is—"a part of our process by which we spin yarn from dressed or heckled silk waste of long fibres, either in the gum or discharged." The third head, therefore, does not include either of the first two, because it is put in the alternative—"silk, either in the gum or discharged." What, then, is the novelty of the process claimed by the plaintiffs as proved in evidence in respect of this third head? It appears from the evidence, that the process of spinning silk waste without cutting it had been previously practised—practised, it is said, in secret, and not made known to the public; and if that had been made out, I should have agreed with the learned counsel for the plaintiffs, that that would not have been enough. But it appears to me, that there is abundant evidence to show, that the yarn spun from silk waste in the uncut fibre had been manufactured to a considerable extent, and had been brought into public notice by sale, and after sale had been used for different purposes, though it appears not to have been brought to that state of perfection which would enable parties to apply it to the manufacture of articles, such as those that were produced from the silk yarn made by the plaintiffs. It had, for instance, been used in the manufacture of gold lace. There was, therefore, nothing new in the process of spinning silk yarn from silk waste, in the long fibre, nor in the machinery upon which it was spun. And all that can be claimed by the plaintiffs is, that they have more skilfully adapted a known machine to the preparation of materials previously known, by a process previously known,

and producing a known result, but still producing that result in an improved condition. This appears to me the extent of the discovery and of the merit of the plaintiffs' invention. Now this may be useful, as the jury have found it is; it may be valuable; but it is not the improvement which the plaintiffs have described and claimed in this specification. I am, therefore, of opinion, that the verdict should be entered for the defendant on the second and third issues.

The improvement which the plaintiffs appear by the evidence to have made, is not that claimed by the specification

CRESSWELL, J.: I am also of opinion, that the verdict should be entered for the defendant on the second and third issues. This patent right, as explained by the counsel for the plaintiffs, is undoubtedly of a very singular character. The plaintiffs do not claim any article produced by the process, they do not claim the machinery used in producing it, nor do they claim any ingredient used in producing it. They claim, it is said, merely a process. Certainly, there are dicta in the books, that a process may be the subject-matter of a patent. Whenever that question arises, of course, I shall be prepared to give it every consideration, and form the best judgment I can upon it. I may remark, however, that I do not find any distinct decision, stating that the mere omission of a part of a process, which this in substance is, would form sufficient subject-matter for a patent right. I do not propose, in considering the question now before the court, at all to inquire into the nature of the evidence which was given in the cause. The jury have come to a finding, against which no complaint has been made. It appears, that both parties are content to say, that the jury have really come to the right conclusion, and that they have found certain matters, which the parties on the one side and on the other contend to be in substance a finding for them. The jury have found, that it is not a new invention nor a new combination; have the plaintiffs claimed by their patent a new invention or a new combination? If they have, then the jury have said there is neither; and if they have claimed a new invention, and the jury have found there was none, of course they could not be the inventors. Now, if there could be any doubt, that the plaintiffs intended to claim each of the eight parts mentioned at the beginning of the specification as a portion of their invention, they fix it by the concluding part of the specification, where they say, "we desire it to be understood, that we disclaim those parts of the process or mechanism which may have been, previous to the granting of our patent, well known; but we restrict our claim to the eight several heads of invention mentioned in the early part of this specification, all of which we believe to be new, and of great public utility." Now, do they claim any mechanism? I apprehend it is quite clear that they do. The sixth head of invention may be doubtful as to its meaning. I have considerable doubt in deciding, whether they

Judgment.

The invention
claimed must
distinctly ap-
pear by the spe-
cification.

If any part
claimed as new
or improved be
not so, the pa-
tent is invalid.

mean in that head to claim the throstle machine as part of their invention, or whether they merely use the throstle machine for the purpose of spinning this article when prepared in this particular mode; and if any question were clearly before the court, as to the validity of this specification, whether it ought not to be held void as being too ambiguous in its terms (for every party is bound to tell the public clearly by his specification what he claims, and what they may do, or not do, without risk of an action for infringing his patent), I should certainly have been disposed to think, that it would be difficult for the plaintiffs to get over that objection to that part of their specification. But in the seventh head, they distinctly claim certain improvements effected in the throstle machine; and in describing the drawings they say, "they represent the well-known spinning machine called a 'throstle,' which machine, combined with the improvements we have applied to it," &c., clearly claiming certain improvements in it as their own; and again, in the concluding part, "we disclaim those parts of the process or mechanism which are old," thereby again claiming some of the mechanism as new. Now the jury have said, there is no new invention. This finding is equally fatal to the plaintiffs, whether they meant to claim the whole machine as improved, or parts of it only. Again, do they mean to claim a new combination of the parts of the machinery? If they do, the jury say, there is no new combination. It is perfectly clear to my mind, that they have claimed some new mechanism, some portion of the machinery used for the purpose of producing this manufacture, or carrying on this process, whatever they please to call it. This the jury have distinctly negatived; there is no doubt on the meaning of the terms they have used; and I think, therefore, these two issues must be found for the defendant. And this makes it immaterial to inquire, what was the meaning of the jury in finding that there was an improved process; whether they meant that the difference in the stages through which the work was carried was an improvement, or whether they found that the plaintiffs carried the works through those stages which were previously known in a better manner, is quite immaterial, because, whatever may be the improvement of the process, it does not relieve the plaintiffs from the difficulty of having claimed this as a new invention, or combination of this machinery with other parts, which the jury have distinctly negatived. The rule, therefore, for entering a verdict for the defendant on the second and third issues must be made absolute, and the plaintiffs' rule must be discharged.

Rule absolute accordingly.

IN *re* SHARP'S PATENT, *ex parte* WORDSWORTH.

Cor. Lord Langdale, M. R.

This was an application to the Master of the Rolls, as keeper of the records of the Court of Chancery, to remove from the rolls of that court a memorandum of alteration, which had been duly enrolled under the authority of the *fiat* of the Solicitor General, according to the provisions of the statute(a). The following were the circumstances of the case, as stated in the petition(b) and affidavits.

The M. R. has no jurisdiction to remove from the records of the Court of Chancery a memorandum of alteration enrolled under the statute.

Letters patent, dated the 8th of October, 1836, had been granted to John Sharp, of Dundee, for "certain machinery for converting ropes into tow, and certain improvements in certain machinery for preparing hemp or flax for spinning; parts of which improvements are also applicable to the preparing of cotton, wool, and silk, for spinning." The specification was duly enrolled 8th of April, 1837. In the same year Mr. Sharp obtained letters patent for Scotland, for the same invention. On the 31st of May, 1838, letters patent were granted to the petitioner Joshua Wordsworth, for "improvements in machinery for heckling and dressing flax, hemp, and other fibrous materials," the specification under which was duly enrolled 30th Nov. 1838.

On the 18th of August, 1838, a petition was presented to Sir R. M. Rolfe, her Majesty's Solicitor General, for leave to enter a memorandum of alteration in the specification of Mr. Sharp's English patent(c). The Solicitor General ordered advertisements to be inserted in the Gazette and two London papers, and in a Scotch newspaper circulating in the neighbourhood of the residence of the patentee(d); which, having been done on the 8th of September, he granted the *fiat* for enrolling the said memorandum of alteration, which was enrolled accordingly on the 20th of September, 1838.

The petitioner alleged, that certain portions of the said memorandum of alteration described a new machine or arrangement of machinery, and extended the exclusive right granted by the letters patent, and was in substance the same machinery as had been invented by the petitioner, and described in the specification of his patent; and prayed that such portions might be ex-

(a) 5 & 6 W. 4, c. 83, s. 1. See the section, ante 250.

(b) The petition was presented 9th of April, 1839; first hearing on the 29th of May, 1839; amended and finally heard 22d of December, 1840.

(c) A memorandum of alteration in the speci-

cation of the Scotch patent, had been enrolled some time previously in the office at Edinburgh.

(d) The advertisement was inserted in the "Gazette," "Times," and "Chronicle," of the 24th of August, and in the "Dundee Courier" of the 28th of the same month.

In Chancery. purged from the said memorandum of alteration, and the rolls of the court (e).

May 29, 1839. *J. Russell* applied for an order *ex parte*, as on the default of the respondent, and tendered an affidavit of service of a copy of the petition on the respondent in Scotland, and submitted that this being a case under the new act was without precedent; and unless such service were accepted, there could be no means of serving parties out of the jurisdiction of the court.

Lord LANGDALE, M. R.: That might be a very good ground for an application for substituted service, but not for such service as had been made. Have the respondents employed no agent in London, in preparing and filing the memorandum, on whom service might be ordered? Is not the memorandum void, if, as the petitioner contends, it exceeds the limits of the act; and what more can the petitioner want?

(e) The allegations of the petition were supported by various affidavits on the part of the petitioner; these were met by other affidavits on the part of the respondent; the views adopted by the court, render these and the merits of the case wholly immaterial to be stated.

No decision has yet taken place on several of the questions, which might have been raised before another tribunal, upon the memorandum of alteration enrolled in this case; the following additional information and observations may be of service. Mr. Sharp stated in his affidavit, that in the course of constructing and using the said improved machinery, he discovered and was advised that a certain slight modification or variation necessary to be fully understood by the manufacturer of, or operator with, the said machinery, had not been so fully and perfectly described in the said specification as ought to have been done, and as the public had by law a right to expect, in order to enable them, at the expiration of the said letters patent, in the most perfect and effectual manner, to use and enjoy the said invention, and that he was in consequence thereof desirous of availing himself of the provisions of the act in respect of such imperfect or insufficient description as aforesaid. That the said memorandum of alteration contains *bona fide* a further and more complete description of deponent's said machinery, comprehended under the fifth and ninth heads of the said specification, as deponent, in the course of constructing and using his said invention, found the same best and most efficiently to work.

The affidavit denied that the said memorandum described a new machine, or extended the exclusive rights granted by the letters patent; the principle of the heckling machine, for which, among other things, the patent was granted, and as at first described, being to heckle the flax on both sides at the same time by heckles and plates, placed alternately upon two cylinders, which are driven at the same speed; and alleged that the said memorandum of alteration merely described more fully, and by a more perfect method, the said principle of so heckling the flax on both sides at the same time.

The advertisement inserted in the "Gazette" of the 24th of August, 1838, and other papers, states the intention of the party to apply for permission to enter and enrol certain alterations and modifications in the specification, for the purpose of more fully explaining the same, and to render the subject-matter thereof more easy to be understood and put in practice (referring to the parts of the specification to which the alteration related).

The above statements of the respondent with respect to his own memorandum of alteration, suggest the following important questions:

1. Whether an omission in the original specification of the kind above stated, can be supplied and corrected by a memorandum of alteration, enrolled under the statute?

2. Whether, if the information so supplied be such as ought to have been contained in the specification, the proviso of the letters patent was complied with by the original specification in such manner as to preserve the patent?

3. Whether, supposing the improved arrangements are such as might have been the subject of new letters patent, the importation of such arrangements into the specification of existing letters patent is not, in point of law, an extension of the exclusive rights granted by those letters patent?

According to the practice of the law officers of the crown, memoranda of alterations of a very extensive kind have been allowed, and on these obvious grounds, that the public are benefitted at all events; the patentee derives no profit or advantage if the memorandum of alteration be such as is not warranted by the statute, it is simply void and of no effect; whereas, a patentee may be greatly prejudiced if a proposed memorandum of alteration of doubtful character should be disallowed by the officers of the crown. The validity of any memorandum of alteration when enrolled is matter of law and of fact, to be decided in the same manner as questions arising on the validity of the original specification.

J. Russell: The existence of the memorandum upon the rolls A.D. 1840. of the court, gives the party a *prima facie* right, which is a grievance to the petitioner and others, who ought not to be driven to a more expensive remedy. The court has power over its records, and has been in the habit of exercising jurisdiction over any alterations in them; the present is a corruption of the rolls of the court.

Lord LANGDALE, M.R.: You have a plain and easy remedy elsewhere. If the memorandum goes beyond the act, as you say, it is void, and could not be given in evidence or made any use of. If it was a specification under the old law, what jurisdiction should I have to take it off the roll? If I were to decide that this memorandum is void, and to order it to be taken off the roll, and it turned out that it was not so, what situation would the patentee be in? I might be depriving him of his patent. I apprehend I have no discretion about receiving a memorandum when it has been sanctioned by the Attorney or Solicitor General; and therefore, how could I make an order which would have the effect of depriving a patentee of his rights under the act? At all events I can make no order on the present service.

On a subsequent day, on affidavits, stating who had acted Mar. 25, 1840. as agents in this country for the patentee, an order was obtained for amending the petition, and that personal service of the amended petition on the patentee and his agent might be deemed good service.

Pemberton, Q.C., and *J. Russell*, appeared in support of the Nov. 5, 1840. amended petition. The alteration in the specification is one which the act of parliament does not warrant. The act expressly provides that the alteration shall not be such as to extend the exclusive right granted by the letters patent; but in this case the right is extended in such a manner as to infringe upon the rights of the petitioner, and against this he is entitled to relief. The statute provides, that the memorandum of alteration in the specification shall be taken as part of the letters patent and specification in all courts whatever. If this alteration, one unwarranted by the statute, is to be considered as part of the records of the court, then this court has jurisdiction to expunge the irregular entry on its rolls. The records of the different courts have always been subject to their jurisdiction and authority, and if the court finds they are not in the state they ought to be, it will correct them. This was done by Sir *J. Leach* in *Redmund's* case (*f*), where an error in the enrolment of a specification was ordered to be corrected. The legislature could never have intended that the Attorney and Solicitor

(*f*) 5 Russ. 44, and *post* 649.

In Chancery.

General should have an uncontrolled authority to order any alteration whatever in a patent, or to direct any entry they pleased on the rolls of the court; for if they are to decide conclusively without giving parties, in whose absence they decide, the power of appealing, and a *fiat* of the Attorney or Solicitor General should be obtained by fraud, accident, or mistake, there would be no means of correcting the error. There is no other jurisdiction to which this application can be made, and if this court ever had jurisdiction to correct its own records, it can only be taken away by express enactment (*g*). There is no exclusion of the jurisdiction of this court in the statute in question; it must, consequently, still remain. The court, therefore, has authority to control the discretion of the Attorney and Solicitor General, and to judge whether, under the act of parliament, the memorandum is such as to be proper to be added to the record.

Again, the Attorney or Solicitor General is only authorized to sanction such a memorandum as does not extend the patent. Here the memorandum does extend the patent. The act of parliament, therefore, does not apply, and the amendment may be treated as surreptitious, and as forming no part of the rolls. It will be said, that in this view of the case, the petitioner will not be prejudiced, as, on the trial of an action at law, the fact will appear that the alteration was unwarranted; but the act expressly provides that the alteration "shall be deemed and taken to be part of such letters patent or specification, in all courts whatever" (*h*); the altered specification will, therefore, be conclusive. Independently of this, the petitioner has a right to try an action without these words; and as, where a deed or other instrument forms a cloud over the title of a party, this court will order it to be delivered up, so here the court will relieve the petitioner from the effects of an improper entry on the records of the court made in his absence.

M. D. Hill, Q. C., and Bacon, for the respondent. The Master of the Rolls has no jurisdiction to do what is asked by the petition. The alteration is not even a record in its strict sense, and if it were, the Master of the Rolls, sitting as the keeper of the records, has no power to expunge an alteration sanctioned by the proper authority: his jurisdiction in this respect is confined to the amendment of clerical errors. The principle adverted to as established by the decision on the

(*g*) On this point reference was made to *Attorney General v. Aspinall*, 2 Myl. & Cr. 613; to *Attorney General v. The Corporation of Norwich*, *ibid.* 430; to *Attorney General v. The Corporation of Poole*, 4 Myl. & Cr. 17; and to *Attorney General v. Wilson*, 1 Cr. & Ph. 1.

(*h*) As to the meaning of this clause, see Perry

v. Skinner, *ante* 250, in which case it was held, that where a patent is originally void, but amended under 5 & 6 W. 4, c. 83, by filing a disclaimer of part of the invention, that act has not a retrospective operation, so as to make a party liable for an infringement of the patent, prior to the time of entering such disclaimer.

Municipal Corporation Act, that an old jurisdiction is not excluded by the erection of a new tribunal, may be conceded to the petitioner, but before the statute authorizing the enrolment of a memorandum of alteration this court had no jurisdiction whatever on the subject. The right of disclaimer, and of effecting an alteration in the title and in the specification, was a new creation, for the determination of the questions regarding which the legislature created a special tribunal, from which there was no appeal to this court. If this court could re-hear the decision of the Attorney or Solicitor General, the same right would extend to any decision of the Judicial Committee of the Privy Council, on the matters submitted to their jurisdiction by the statute. The Master of the Rolls is only a ministerial officer in these matters; as the keeper of the records, he is bound to receive and keep whatever is duly authorized (i).

Lord LANGDALE, M. R. (after stating the circumstances): *Judgment.*

The petitioner complains of this proceeding as injurious to him, as it undoubtedly is, if the facts be as alleged; and he prays that such portions of the memorandum in Sharp's specification as are set forth in his petition, and are in substance descriptive of the machinery invented by the petitioner, may be expunged from the memorandum of alterations and the rolls of the court.

The question now is, whether, supposing the facts to be as alleged, I have authority to do what is asked, and I am very clearly of opinion that I have not. Patents for inventions are granted on condition of a specification of each invention being enrolled in a limited time, and except for the purpose of correcting mere verbal or clerical errors, proved to have arisen from mistake or inadvertence, I am of opinion that I have no authority to make any alteration in the enrolment of the patent or of the specification. The party enrolling his specification does it at his own peril; and if in his specification he expresses something by which his patent is rendered invalid, he must submit to all the legal consequences; and those who have a right to take advantage of any error of his, must do so in a legal course; they cannot require the Keeper of the Records or

No authority to alter a specification, except for the correction of clerical errors.

(i) The following was the form of the *fiat*: "To the Clerk of the Patents for England. This is to certify that John Sharp, of Dundee, in the county of Forfar in Scotland, flax-spinner, hath applied to me for leave to enter with you the above written memorandum of alteration of part of the specification of a certain invention, for which letters patent were duly granted to him under the great seal, dated at Westminster, the 8th of October, 1836, the specification of which was duly enrolled on the 8th of April, 1837; and on considering the said application I directed him to advertise his said alterations in the "London Gazette," and in

the "Times," and "Morning Chronicle," and the "Dundee Courier," newspapers. And such advertisements have been duly made in the "Gazette," "Times," and "Morning Chronicle," on the 24th of August last past, and in the "Dundee Courier," of the 28th day of the same month, and no objection having been made to the said application, I have accordingly granted leave to the said John Sharp to file his said memorandum of alterations, pursuant to the statute passed in the sixth year of the reign of his late majesty, entitled "An act to amend the law touching letters patent for inventions."—Signed R. M. ROZEE."

In Chancery.

Rolls to alter that which the patentee has claimed or disclaimed in his specification, and compel him by such enforced alteration to say something which he never intended to say.

There were very good reasons for relieving patentees from some of the risks and difficulties to which they were liable from errors in their specifications; and the statute 5 & 6 W. 4, c. 83, authorized disclaimers and memorandums of alterations to be filed and enrolled with the leave of the Attorney and Solicitor General; and enacted, that when filed and enrolled, the same should be deemed and taken to be part of such letters patent and specification, *i.e.*, as the act has been expounded (*k*), shall be deemed and taken to be part of the letters patent or specification, from the time of filing the memorandum of alteration. And considering the memorandum of alteration as now being part of the specification, I conceive that it ought to be dealt with as such, and no otherwise. If it were alleged that the enrolled memorandum of alteration, by mistake of the writer, contained verbal or clerical errors, by means of which something was enrolled contrary to the true intent of the party, and if sufficient evidence were given of the fact, I should think myself authorized, by precedent, to correct the error, and make the enrolment accord with the proved intention of the party at the time of the enrolment. But it has never been supposed that the Master of the Rolls, as Keeper of the Records, had authority to permit or to order an erroneous claim to be expunged or amended. The party may have claimed too much, and thereby made his patent good for nothing, or may have omitted to claim something which he was justly entitled to; but on such grounds the Keeper of the Records could not interfere on his behalf, or at his instance; and I apprehend that no attempt has ever been made to induce the Keeper of the Records to expunge by his authority some claim which the patentee desired to sustain, and was willing to defend in due course of law.

The authority of the Master of the Rolls is limited to correcting errors of mistake.

Under the late statute, the disclaimer is not to be such as shall extend the exclusive right granted by the letters patent. But the Keeper of the Records, as such, has no authority to decide whether there is any extension; nor has he, in that character, any means of investigating the truth and justice of the case. It is no part of his duty, when he receives the enrolment into his custody, to consider whether the Attorney or Solicitor General has improperly given leave to file the memorandum, nor can he afterwards determine any such question.

I delayed my decision in this case, for the purpose of inquiring what had heretofore been done in the amendment of

(*k*) In the case of *Perry v. Skinner*, 2 M. & W. 471, & ante 253.

ments in this court; and from the information which I A.D. 1840. received, it would seem that it has always been usual to and clerical errors. When errors have been made in grants, as said, "*per incuriam et ex inani inadvertentiâ scriptoris*," have been amended by the Master of the Rolls; some- under the authority of a warrant from the crown, some- with the consent of the Attorney General, sometimes in sequence of a reference to him by the Lord Chancellor; and e is an instance of an amendment being made by an order he Lord Chancellor, pursuant to an order of the king. errors have been proved and rectified by comparison with writ of Privy Seal, or with the signed bill, or with the nal grant (1).
t an early period the enrolment of the acknowledgment of

Records amended.—The following are the of amendment of enrolments referred to by aster of the Rolls, and which his lordship ndly permitted the author of this note to t.

-Pat. 2 Hen. 7, p. 1, n. 5. This is a warrant, ed to the enrolment under the king's hand, dressed to John, archbishop of Canterbury, ancancellor, reciting a grant of the office of of a forest, and that in the bill and let- atent the name was mistaken and called ere" instead of "Kingesbere," and directing aid name to be reformed, as well in our signed as in our letters patent and enrol- of the same." The amendment not made.

-Pat. 8 Hen. 8, p. 2, n. 4. Warrant under g's hand, attached to the enrolment, "to ert Tunstall, clerk, Master and Keeper of lls and Records in our chancery, and, in sence, to his depute there for the time 'reciting the grant of the office of attorney town of "Hereffordwest," the which word isnamed and miswritten for "Haverford- and directing the former word to be erased latter inserted, "as well in our said letters and the enrolment of the same, as in our Seal, whereby our said letters patent were

Pat. 35 Hen. 8, p. 1. Date of the grant ad in the enrolment by order of Julius . M.R., in the presence of Sir Robert Attorney General, and others. The roll ed by the Master of the Rolls and the ey General. The date is stated to have nitted *per incuriam*, and the enrolment made espond with the Privy Seal and letters

Pat. 36 Hen. 8, p. 4. The enrolment ed by order of Sir Thomas Egerton, Lord and Master of the Rolls, in the presence elf and Sir Edw. Coke, Attorney General. ll signed by both. A word omitted *per a scriptoris*, supplied so as to make the ent correspond with the Privy Seal and let- tent.

Pat. 36 Hen. 8, p. 12. Several words, in the enrolment, but contained in the eal bill, inserted by order of Lord Bruce, llor and Master of the Rolls, in the pre-

sence of himself and a Master in Chancery, and signed by both, so as to make the enrolment cor- respond with the Privy Seal and letters patent.

6.—Pat. 37 Hen. 8, p. 3, n. 24. The name of a county amended by order of Lord Bruce, so as to make the enrolment correspond with the Privy Seal and letters patent.

7.—Pat. 2 Edw. 6, p. 4. Several words omit- ted *per incuriam* inserted in the presence of Lord Bruce and the Six Clerks. Roll signed by Lord Bruce, so as to make the enrolment correspond with the Privy Seal and letters patent.

8.—Pat. 2 Edw. 6, p. 5. Roll amended (by the insertion of words omitted *per incuriam*), in the presence of the Lord Bruce and two of the Six Clerks, and another person, all of whom inspected the king's bill and the letters patent, and signed the roll.

9.—Pat. 1 & 2 Ph. & M., p. 3. Enrolment amended in a date, upon petition to Lord Keeper Guildford, who referred it (9th of May, 1684) to the Master of the Rolls. In the margin of the enrolment is a memorandum signed by Sir H. Grimston, M. R., stating the amendment to be made by his order and in his presence.

The above petition by the Governors and Fellowship of English Merchants, for the discovery of new trades, stated the grant of letters patent, 26th of February, 1 & 2 Ph. & M., incorporating the company; that by act of parliament, 8 El., the privileges by the said letters patent granted were confirmed; that the said letters patent were destroyed in the fire of London, and the petition- ers having occasion to make use of the enrolment thereof, discovered the date to be written the "6th" instead of the "26th;" that it appears by the Privy Seal or warrant of the enrolment, that the *recepti* thereof is dated the 26th, and by the recital in the act of parliament remaining in the Rolls' Chapel. The petition was accompanied by an affidavit of the Secretary of the Company, stating that he had perused several ancient en- tries of the said letters patent, describing them as dated the 26th of February.

10.—Pat. 1 El. p. 9. The original enrolment, on a comparison with the warrant of the queen's bill and the letters patent, being found full of gross errors, was cancelled, and the new enrol- ment placed in front of it by order of Sir Edward

In Chancery. a deed was amended at the request of the grantor, who had acknowledged it. I have not been supplied with any early instance of amending the specification of a patent invention, but the recent instances of such amendments have been of this kind:—In a case before Lord Gifford in 1824, the word “wire”

Phelps, M. R., and the memorandum signed by him.

In the margin of the second enrolment is the following: “Memorandum. The first enrolment of these letters patent being examined both with the warrant of the queen’s bill signed, and the letters patent themselves under the great seal of England, the same was found full of many very gross errors and mistakings, differing both from the said warrant and letters patent. Whereupon it was prayed, that a new enrolment might be made agreeable to the letters patent under the great seal, and to the said warrant.”

11.—Pat. 5 El. p. 7. A single letter in the enrolment of letters patent amended, “R” instead of “L” having been written as the first letter in the name of a place. The petition to king James, setting forth the error, was referred to Sir H. Yelverton, Attorney General, who reported that the amendment might be safely made, and that the course to have this effected was by warrant under the Signet or Privy Seal, to be directed to the Master of the Rolls to amend the same. The warrant was made out and the enrolment amended accordingly.

12.—Pat. 7 El. p. 3. A word omitted *per incuriam* in the enrolment of the letters patent, and thereby occasioning a variance between the enrolment, the Privy Seal, and the letters patent, inserted by order of Lord Bruce, and the roll signed by him.

13.—Pat. 7 Jac. p. 18 n. 10. A petition to the Lord Bishop of Lincoln, Chancellor, stating that both in the letters patent and in the original grant extant at the Rolls, lands were granted to the petitioner for “thirty years,” but that the clerk of the enrolment had, through his negligence, misenrolled the same as only for “twenty years,” was referred to the Master of the Rolls. In the margin of the roll is a memorandum, that the amendment was made by Sir Julius Cæsar, M. R., but the error remains.

14.—Pat. 8 Jac. p. 44. The word “Priorat” altered into “Monast” by order of Sir Dudley Digges, M. R., in the presence of himself and Sir John Bankes, A. G., to make the enrolment agree with the Privy Seal and letters patent. The roll was signed by both.

15.—Claus. 9 Jac. p. 18, n. 13. The enrolment of a deed amended at the request of the grantors, who had acknowledged it, in the presence and by the command of Sir E. Phelps, M. R. The roll is signed by the grantors. The words struck out were “feod. firm” in the recital of the grant, the lands being held by fealty.

16.—Pat. 9 Car. p. 5. Grant to Sir Kenelm Digby, Knt., of lands in Com. Lancaster. The grant having passed through several stages with the error of a single letter, which originated at the Signet Office, was, upon petition to the crown, ordered by the Lord Keeper, with the advice of the Attorney General, to be amended, and newly sealed.

The petition in the above case, after reciting that certain lands, which had escheated to the crown in the county of Lancaster, and so described in the office found to entitle the crown, and in the bill under the sign manual for passing the same to the petitioner at the Signet Office, by the mistake of the clerk taking an “L” for a “K” are mentioned to lie in “Kank,” and by that error are mentioned both at the Privy Seal and Great Seal, and in the enrolling thereof, and that this could not be amended without his majesty’s special warrant—prayed his majesty’s warrant that the same might be amended, and made agreeable to the bill signed, and the patent, after the amendment thereof, new sealed.

The answer to the above petition was as follows: “His majesty’s pleasure is, that those mistakes be amended and made agreeable to the bill signed, and the patent, after the amendment thereof, new sealed.”

In conformity to which, the Lord Keeper having seen the said letters patent and the Privy Seal whereupon the same did pass, and the original bill signed with his majesty’s hand, and the transcript thereof which passed the signet, ordered that the Privy Seal remaining in the Court of Chancery, and the enrolment thereof, be amended, and that the seal be pulled from the letters patent, and the same patent amended and new sealed.

The order in the above case is printed at length in ‘Beames’ Orders,’ p. 66. See 16th Nov. 1635, Reg. Lib. B., 1635, fo. 95 (1).

It is not improbable that the above order, which speaks of the enrolment of the Privy Seal bill, may have given rise to the confusion which appears to have existed in subsequent cases, as to whether the enrolment was of the Privy Seal bill or of the letters patent. See *post*, 650 & 656.

17.—Claus. 7 Geo. 2, p. 9, n. 3. Date of enrolment of a deed inserted by order of Sir Thomas Clarke, M. R., upon sight of the enrolment, and the said indenture, and the indorsement thereon, by the clerk of the enrolments, specifying the day and year of the enrolment.

18.—Pat. 24 Geo. 3, p. 2, n. 4. Amendment of several errors in the enrolment, by order, 24th July, 1786, of Lord Kenyon, M. R., upon inspection of the enrolment and the Privy Seal. This was a grant of a license to the Corporation of the Trinity House, to erect two lighthouses, and to take certain dues, and the record of the license differs from the Privy Seal in having the word “covenant” instead of “convenient,” and “inwards” instead of “outwards,” and “heretofore” instead of “theretofore,” and “appertained” instead of “appertaineth.”

In this case it does not appear on the face of the order, whether the letters patent accorded with the Privy Seal.

19.—Claus. 46 Geo. 3, p. 117, n. 13. An annuity deed, ordered by Sir John Leach, M. R., to be examined with the original remaining with

had been written instead of "fire," and he ordered the specification to be amended (m). In the case of *Redmund* (n), an erroneous transposition of numbers was amended by order of Sir John Leach, who, in a subsequent case, ordered to be amended two errors, by one of which the word "which" was written instead of "wheel;" and by the other of which, the word "increase" had been written instead of the word "inverse." I have had similar cases before me, in which there have been errors more or less numerous, but all of the same kind. And in every case which has occurred, it has plainly been intended to do no more than amend mere slips or clerical errors made by the parties, or the agents of the parties, who, intending to make an accurate enrolment, have, by mere inadvertence, made an enrolment which was not what it purported to be, a true statement of that which the party intended at the time; and not only has strict evidence of error been required, but in order to enable any third party to dispute the validity of the amendment, and of the order, it has been directed that the order itself should be endorsed on the enrolment.

All the cases of amendment are of clerical errors, or of mistakes from inadvertence. The order to be endorsed on the enrolment.

It does not appear that the Master of the Rolls, as Keeper of the Records in Chancery, has ever exercised any greater authority than I have stated in matters of this kind; and being of opinion that I have no jurisdiction to make any such order as is asked by this petition, I must dismiss the petition with costs.

the Six Clerks, and to be made conformable therewith.

In the above case the petition prayed that the Clerk of the Enrolments might be at liberty to attend at the Chapel of the Rolls with the said memorial, and, together with the Clerk of the Records, in the Rolls' Chapel, compare the same with the record; and that the Clerk of the Records might thereupon, in the presence and with the concurrence of the said Clerk of the Enrolments, amend the record so as to make the same exactly conformable to the said memorial. Upon inspection of the said memorial and enrolment it was ordered as prayed.

20.—Rot. Judic. 397 p. No. 1. A memorandum of the amendment of a decree by verbal order of the Master of the Rolls (25th March, 1736) without petition, so as to make the enrolment agreeable to the docquet.

It would appear from the general tenor of the above cases, that whatever may be the usual practice as to making the enrolment from the Privy Seal bill, it is intended and supposed to be made from the letters patent. This matter was very fully considered in the subsequent case of *Nickels'* patent. *Post*, 650 & 656.

(m) That was in the case of *Whitehouse's* patent (*ante* 455) dated 26th Feb. 1825, "for certain improvements in manufacturing tubes for gas and other purposes;" by the order, which was made 13th Jan. 1830, by the Master of the Rolls, on the petition of *James Russell*, stating the error to be a clerical one, and to have arisen in the engrossment

of the specification, as appeared by the original draft from which the engrossment was made, and on the affidavit of the agent, it was ordered, "that the proper officer do amend the original roll or entry of the said specification remaining of record in the Enrolment Office of this court, by altering the letter 'w' in the said word 'wire,' to the letter 'f,' so that the same may read 'fire.'"

In the case of *Rubery's* patent, granted 14th Nov. 1837, for "certain improvements in the manufacture of part of the furniture of an umbrella;" the specification recited the letters patent to have been granted in "October" instead of "November." Lord *Langdale*, M. R., ordered the amendment as prayed.

In both the above cases the petition stated, that no *scire facias* to repeal the patent, or other proceedings at law on the patent, had been instituted.

(n) July 25, A.D. 1828.—Letters patent, 9th Nov. 1821, to *David Redmund*, for "an improvement in the construction or manufacture of hinges for doors."

The patentee stated in his petition, that within the last month he had discovered that the copying clerk in engrossing the specification, and the plan annexed to it, had by mistake transposed the numbers by which in the specification reference was made to the plan; and that no office copy of the specification had been taken. The petition prayed that this clerical error in the enrolment might be amended.—Ordered as prayed. 5 Russ. 44.

In the Rolls'
Court.
Feb. 24, 1841.

IN re NICKELS' PATENT.

Cor. Lord Langdale, M. R.

A clerical error having been committed in the queen's warrant for granting letters patent by a clerk in the Secretary of State's office, and having been copied into the queen's book, the queen's signet ring, the privy seal, and the letters patent and enrolment, and having been corrected by her majesty's command in the queen's warrant and the queen's book, the Master of the Rolls, on the petition of the petitioner, to amend the said letters patent, and the privy seal, and the letters patent and enrolment, ordered the proper officer from the Privy Seal office to be at liberty to amend the Privy Seal bull, which was in his lordship's custody, and upon that being done he ordered the enrolment to be amended.

This was a petition to the Master of the Rolls, as keeper of the Records of the Court of Chancery, stating, that on the 12th of March, 1838, Christopher Nickels presented his petition to her majesty, wherein he alleged that, in consequence of a communication from abroad, he was in possession of an invention of "improvements in machinery for covering fibres applicable in the manufacture of braid and other fabrics;" and prayed the grant of letters patent under the great seal of Great Britain, for the said invention. That the said petition, with the usual declaration, was left at the office of her Majesty's Secretary of State for the Home Department, and that the said petition was, on the 19th of the said month, again obtained from the said Secretary of State's office, by the petitioner's agents, with a reference therein to the Solicitor General; that the said petition, with such reference, was then taken to and left at the office of her majesty's Solicitor General, for his report thereon; that notices of the said application for letters patent were given by the said Solicitor General to all parties who had entered *caveats*, which notices designated the invention as "improvements in machinery for covering fibres applicable in the manufacture of braid and other fabrics;" that the said Solicitor General's report, on the said petition, was afterwards obtained; which said report recited the petition as presented to her majesty as aforesaid; and after correctly describing the invention as "improvements in machinery for covering fibres applicable to the manufacture of braid and other fabrics," expressed the humble opinion of the said Solicitor General, that her majesty might grant her royal letters patent for the said invention: that the above report was then taken to the Secretary of State's office by the petitioner's agents, and left there for her majesty's (the queen's) warrant, which was made out at the said office by the proper officer: that the petitioner afterwards in due course obtained letters patent for his said invention, under the great seal of Great Britain, bearing date the 20th of April, 1838; that the petitioner did, on the 19th of October, 1838, duly sign and seal the specification of his said invention, and therein had correctly described such invention as "improvements in machinery for covering fibres applicable in the manufacture of braid and other fabrics;" and which said specification was duly enrolled on the 20th day of the same month of October; that the petitioner had lately, that is to say, on or about the 13th

of January, 1841, been informed that an error had been made A.D. 1841. in the Secretary of State's office for the Home Department as aforesaid, in the queen's warrant, wherein the officer had, in reciting the petition of the petitioner, miscopied the petition, and by error introduced the word "recovering" for "covering;" that the petitioner had since been informed, that the queen's signet bill, the privy seal bill, the letters patent, and the enrolment thereof, were prepared and engrossed by the public officers severally appointed for that purpose, such preparations and engrossments being in no way under the control of the petitioner or his agents; that the queen's warrant, before referred to, in which the letters "re" were in error prefixed to the word "covering," had by command of her majesty been corrected, and the following memorandum written thereon: "The word *recovering* in the seventh line of this page was erased, and the word *covering* in the same line was inserted, in the presence of her majesty, and by her majesty's command. Whitehall, 23rd January, 1841. (Signed) Normanby." That the queen's bill, into which also the same error had extended, had also been corrected, and the following memorandum made thereon: "The word *recovering*, in the third line of this skin, was erased, and the word *covering* was inserted, in the presence of her majesty, and by her majesty's command. Normanby." Which said bill was deposited with the proper officer at her majesty's signet office, and the signet transcript thereof was deposited with her majesty's officer, the Lord Privy Seal. That the privy seal bill was in the hands of the officer of the Court of Chancery appointed for the purpose of enrolling the letters patent.

The petition prayed that the proper officer from the Privy Seal office might be allowed to make the alteration in accordance with the queen's bill, and that the exemplification or enrolment of the said letters patent, so as aforesaid granted to the petitioner, might be corrected according to the transcript of the queen's bill. The signature of the Solicitor General (Sir Thomas Wilde) was attached to the petition, as consenting to the prayer of it on behalf of the crown. Prayer.

In support of the petition there were the affidavits of the petitioner himself, of his agents, and of the clerk in the Secretary of State's office who made the mistake; from these it appeared that all the regular steps had been taken in procuring the letters patent, and that the error sought to be corrected was a mere clerical error, and first made in the queen's warrant in the Secretary of State's office; that the error was copied into the queen's bill, the signet bill, and privy seal bill, they being all made out from the queen's warrant; and that the error was continued in the letters patent and enrolment, which were copied from the privy seal bill. That the specification correctly described the invention; and that the error had been corrected,

In Chancery. by command of her majesty, in the queen's warrant and the queen's bill. It appeared also that the plaintiff, in consequence of an infringement of his patent, had filed a bill (in June, 1840) against the London Caoutchouc Company. And having on the 4th of August moved for an injunction against them, the motion was ordered to stand over, with liberty to the plaintiff to bring an action at law. The plaintiff accordingly commenced an action in Michaelmas Term following, and delivered the declaration on the 16th of December. The defendants obtained several orders for time to plead; and pending that time the plaintiff was, on the 12th of January, served with a copy of a writ of *scire facias*, issued at the instance of the company, for repealing the letters patent. In the recital of the title of the letters patent, as set forth in the writ of *scire facias*, the word "recovering" was substituted for the word "covering," which had been used by all parties in the previous proceedings. This led to an inquiry, the result of which was the discovery of the error in question. The petition was presented *ex parte*, but in consequence of the litigation that was pending between the patentee and the company, the Master of the Rolls gave the latter liberty to appear and to oppose the application.

Pemberton, Kindersley, and Hindmarch, were heard first, in opposition to the application. The Master of the Rolls has no jurisdiction to make the amendment required by the petition. The letters patent ought, at least, to be first amended, otherwise there would be a variance between them and the enrolment, and it would no longer be the enrolment of the letters patent. It does not appear that the queen's signet bill has been amended, although it contained the error, and such amendment must be made by the queen herself. Unless the prior documents were all amended, there was nothing by which the record could be amended. The queen's warrant and the queen's bill are the only documents that have been amended. And until the queen's signet bill and the privy seal bill, as well as the letters patent, are amended, there is no ground for amending the record. The Master of the Rolls has no authority to alter either the privy seal bill or the letters patent, at least without the sanction of the Lord Chancellor (a).

Tinney, Dixon, and Corrie, in support of the petition. The Master of the Rolls has jurisdiction to amend a mere clerical error in the enrolment. This is analogous to cases in which deeds, bills of exchange, and records at common law—as fines and recoveries—are accustomed to be amended to effect the intention of the parties; as also original writs out of Chancery. The enrolment is copied from the privy seal bill, not from the

(a) See the *Weavers' Company v. Hayward*, 3 Atk. 362; *Leigh v. Leigh*, 4 Dow. P. C. 650; *Glenn v. Wilks*, 4 Dow. P. C. 322; 2 Tidd's Prac. 1161; 5 & 6 W. 4, c. 83, s. 1.

letters patent, which are also copied from the privy seal bill; A.D. 1841. the queen having authorized the amendment to be made in the warrant and also in the queen's bill, from which the privy seal bill is copied, and the Solicitor General having given his consent to the amendment of the privy seal bill, the court has sufficient warrant to allow the privy seal bill to be amended, and to proceed to amend the enrolment. There is no occasion to have the letters patent first amended, or to apply to the Lord Chancellor for his concurrence in the amendment of the enrolment, inasmuch as the enrolment is made from the privy seal bill (b), and when amended might be given in evidence instead of the letters patent (c).

Lord LANGDALE, M. R. : I must take time to consider the *Judgment*. order which I shall make, if I should think it necessary for me to make any order. The petitioner in this case having petitioned her majesty for a grant of letters patent to secure to himself the exclusive use and enjoyment of a certain invention, and her majesty having been pleased to grant that petition, the petitioner adopted the usual proceedings for the purpose of obtaining the grant. In the course of the proceedings a clerical error was made by a clerk in one of the offices in which the proceedings were to take place, and that error not being discovered in sufficient time, found its way into the letters patent, which are in the possession of the party, and into that which is called the enrolment of the letters patent, which is in my custody as Master of the Rolls. The error consists in the substitution of the word "recovering" instead of the word "covering." After litigation had commenced between the petitioner and the persons who have appeared to oppose the prayer of the petition, the petitioner applied to me to have the error corrected in the privy seal bill and in the enrolment of the letters patent. Considering it to be perfectly clear, that the error was a mere slip, of which the petitioner was entirely innocent no doubt, I have considered it, and I do now consider it, to be my duty to assist in every way I legally can towards its amendment; and that in such a way as, in any event, may be in the least possible degree prejudicial to the party who is likely to suffer by it. Whether I can legally do this, is a matter, no doubt, of serious consideration; and if I can legally do it, in what mode and what particular way it can best be done. I have nothing to do with the moral principle upon which this application is opposed. The object, no doubt, is to take advantage of a slip, for the purpose of defeating any

(b) This would appear to be the course of practice, but it appears that the enrolment ought to be of the letters patent. *Ante* 649, n. 1, & post 654.

(c) 4 Ed. 6, c. 4, and 13 Eliz. c. 6; *Hudson v. Rivett*, 5 Bing. 388; *Rowlit v. Orlebar*, 6 Taunt. 73;

Blackmore's case, 8 Rep. 156; *Cook v. Miller*, 4 Taunt. 749; *Byrom v. Thompson*, 3 Per. & D. 71; *R. v. Jukes*, 8 T. R. 625; *Coke*, 2 Inst. 656, were cited in the argument.

In Chancery.

thing which may turn out to be the right of the party. I have no observation to make on that; the party has a right to take that objection; the law allows him to do so; and the question therefore to be considered is, whether it is to prevail.

The objections are of this sort; they say, first of all, in the various proceedings which unfortunately are rendered necessary prior to the sealing of the letters patent, and prior to the enrolment, all has not been rightly done, so as to enable me to have something in a correct form and duly made correct, by which I am able to correct the record. Great learning and great ingenuity have been employed in that argument. If it were to prevail, I think it would be an extraordinary triumph of subtilty and technicality over common sense and justice. I cannot think it will ultimately prevail; and certainly it does not at this moment appear to me that it ought to prevail. The other objection appears to me to be of a more serious nature.

The letters patent and their enrolment must be intended to correspond.

There can be no doubt that, whatever may be the form of making out the letters patent, and of making out the record of the enrolment of the letters patent, it must be intended that they should correspond. And I certainly am, on the present occasion, asked to make the record of such a form, and to introduce such an alteration in it, however small, by obliterating the two letters "re," that it appears upon the evidence which is now before me, when the alteration shall be made, the record will not correspond with the letters patent; because it is stated on the evidence, that the letters patent contain "recovering" instead of "covering." Now, it is a most serious consideration that I have no right or authority whatever, even if I had the letters patent here, to introduce any alteration into them. I am at present strongly impressed with the notion that what is required cannot be done without the concurrence of the Lord Chancellor. I think the authority of the Lord Chancellor and of the Master of the Rolls, of both of them, required to do that which is now proposed to be done; that is at least my present impression, and it is my present impression so strongly, that I cannot think of acting in any way against it, without a communication with the Lord Chancellor, in order that I may know what his view on the subject may be. With regard to the document, the privy seal bill, no doubt it is the authority upon which the enrolment is made, but it is that privy seal bill coming from the great seal office. That privy seal bill in coming from the great seal office has been acted on; and it may be a question, certainly, whether it ought not to go back there, and whether the alteration ought not to be taken notice of there. I say only a question, because I cannot concur quite in the argument that is used—that it is necessary for me to see that every anterior step has been strictly and duly followed. What I have got here may be quite sufficient; I have got the

queen's sign manual, I have got the queen's bill, and I have A.D. 1841.
 got the consent of the queen's officer, the Solicitor General, to
 make this alteration. If, indeed, every step which was pre-
 scribed to be taken in this case were a step to be taken for the
 security of the crown, to prevent improvident grants of this
 sort, it might then be a very serious consideration, whether we
 ought not to have strictly the authority of every officer through
 whose office it was to pass. But, is that so? I have once or
 twice called it to the attention of the counsel here, on what
 principle it is those several steps were required. The principle,
 I am afraid, is not for the purpose of giving greater security to
 the crown alone, but for the purpose of creating revenue, which
 revenue has been satisfied with what has been already done. I
 think it is a subject of consideration; how that is to be dealt
 with; if I think it right to make any order at all, I shall make
 such an order as seems to me right, and I shall communicate
 that to the parties. But I shall not make any order till I
 have had means of communicating with the Lord Chancellor, in
 order that I may know what his view is on that part of the
 question, which appears to me a subject, at least, of very con-
 siderable doubt.

The various steps
 more for the
 sake of revenue
 than the securi-
 ty of the crown.

His lordship made the following orders: "It is ordered, that
 the proper officer from the office of the Lord Privy Seal be at
 liberty to attend the officer in whose custody the said privy
 seal bill now is, and to amend the said privy seal bill, if he
 shall think fit, by striking out the word 'recovering' in the
 description of the said invention, and inserting the word
 'covering' in lieu thereof. And it is ordered, that the rest of
 the prayer of the said petition do stand over."

Orders.

March 27, 1841.

Amendment of
 the privy seal
 bill.

The privy seal bill having been amended in the manner
 pointed out in the last-mentioned order, and produced to his
 lordship, the following order was made:—"It is ordered, that
 the enrolment made from the said privy seal bill be amended
 by striking out the word 'recovering' in the ninth line of the
 said enrolment, and inserting the word 'covering' in lieu
 thereof, so as to make the same conformable with the said
 privy seal bill as amended as aforesaid; and that the proper
 officer do attend his lordship with the said enrolment, for the
 purpose of such amendment being made in his presence. And
 it is ordered, that a copy of this order be endorsed on the roll
 on which the said enrolment is made."

March 30.

Amendment of
 the enrolment.

Re NICKELS' PATENT.

In Chancery.
May 31, 1841.

Cor. Lord Cottenham, L. C.

An enrolment will not be permitted to differ from the letters patent.
The privy seal bill no authority but to the great seal.
The date of an amended patent not altered.

This was an appeal by the London Caoutchouc Company (a) to the Lord Chancellor from the above orders of the Master of the Rolls. The petition, after setting out the facts of the preceding case, stated further the litigation which had arisen between the parties, namely, that Mr. Nickels had filed a bill against the Company in June, 1840, to restrain an alleged infringement of his patent of "improvements in machinery for covering fibres," &c.; that a copy of the letters patent, furnished by the solicitor of the plaintiff, described the invention as "improvements in machinery for covering fibres," &c.; that the motion stood over until an action should be brought to try the validity of the said patent; that the directors of the said company were wholly ignorant of any such patent having been granted to the said C. Nickels, and on directing a search at the proper office in Chancery for the said letters patent, they discovered that the alleged letters patent were for "improvements in machinery for recovering fibres," &c., and that no letters patent had ever been granted to the said C. Nickels for "covering fibres;" that the privy seal bill of the said letters patent contains the word "recovering," and that they believe the said letters patent, unless the same have been altered, to contain the word "recovering;" that the specification of the said letters patent described an invention for "covering fibres," &c., and no specification had been enrolled of an invention of "improvements in machinery for recovering fibres," &c. That a *scire facias* was sued out in November, 1841, to repeal the said letters patent, as having become void. That an action was brought on the above letters patent as a patent for covering, and was standing for trial. That it is the practice to enter the titles of all letters patent in a book at the great seal office, where the public make search, and in that book the patent is entered as for "recovering;" and from these entries, the publication in various books of the letters patent which have been granted, takes place. That notice had been served on the agent of the said C. Nickels to produce the said letters patent before the Master of the Rolls, but they were not produced, and that on inquiry of the various officers it had been ascertained that

(a) The petition purported to have the common seal of the Company attached to it, and Tinney on behalf of the respondent objected, that the petition purported to be presented by a corporation, but the Company had no common seal,

and the petition was not verified; but the Lord Chancellor overruled the objection, expressing his opinion that the petition was within the meaning of the act of parliament.

the said letters patent had not been altered by any competent A.D. 1841. authority. The petition prayed that the two orders of the Master of the Rolls might be rescinded and set aside, and all the costs of the several petitions might be paid by the said C. Nickels.

Wigram and *Hindmarch* appeared in support of the appeal petition. The first order is erroneous, in allowing the privy seal bill, which was in the nature of an original writ, to be altered without being resealed, the rule being, that after a writ has once been executed, and its authority exhausted, it could not be altered without being resealed; and that when resealed it took effect, in its altered form, from the date of such re-sealing. [Lord *Cottenham*, L.C.: No question of that kind can arise upon this order, because all it does is, to allow access to the document for the purpose of making a certain alteration.] As to the second order, although doubtless not so intended by the learned judge by whom it was pronounced, it amounts to nothing less than the falsification of a record, inasmuch as the enrolment is, in contemplation of law, a copy of the letters patent and not of the privy seal bill, although in practice it is generally made out from the latter document. If the letters patent require amendment, the proper and regular course is to make an application to the Attorney or Solicitor General under the provisions of the statute (*b*), by which, however, it is expressly provided that the alteration should be made without prejudice to proceedings pending at the time; whereas the effect of the order in question would be, to make the Caoutchouc Company wrongdoers by relation, for the enrolment would now represent that the patentee had all along been entitled to a patent for machinery for "covering" fibrous substances; therefore, by the aid of the statute 13 Eliz. c. 6., which dispenses with the production of the letters patent, and makes the enrolment evidence of their contents, the patentee would be enabled, on the trial of the action then pending, to give evidence of a patent which, it was admitted, had never in fact passed the great seal.

Tinney, *Dixon*, and *Corrie*, for the patentee. It must be conceded that such would be the effect of the order in question; but a patentee of an invention is to be regarded as, in some sort, a purchaser for value (*c*). It is an act of justice, and not merely of grace and favour, on the part of the crown to relieve him from the consequences of a defect in his title, occasioned by the default of one of its own officers. An amendment, the only object of which was to make the record of a

(*b*) 5 & 6 W. 4, c. 83, s. 1. See the section *ante* 250, *Law & Practice*, Tit. *Statutes*, but *query*, whether that is applicable to clerical errors or

errors of mistake, which were always amendable at common law.

(*c*) Citing *Williams v. Williams*, 3 Mer. 157.

In Chancery. grant correctly represent what the grant was originally intended to contain, stands on a totally different footing from alterations suggested by an afterthought of the patentee; and it was to cases of the latter description only that the statute 5 & 6 W. 4, c. 83, was intended to apply, the other class of cases having always been remediable by an exercise of the common law prerogative of the crown, as was evident from a number of cases which the Master of the Rolls had found by a search among the Records in the Rolls' Chapel, and in which it appeared that verbal inaccuracies in the records of grants from the crown had been amended by former Masters of the Rolls, a memorandum to that effect being in each case annexed to, or written upon, the margin of the roll (*d*). [Lord *Cottenham*, L.C.: Those cases prove nothing to the present purpose: because, for any thing that appears, the letters patent may, in all of them, have been altered first. There is a power, or should be a power, to alter the letters patent; and when that has been done, there must be a power to alter the enrolment; but the thing to be shown is, that the enrolment has ever been altered without a previous alteration of the letters patent (*e*).]

June 5, 1841. On a subsequent day, Lord COTTENHAM, L.C.: I have desired this petition might be put into the paper, not for the purpose of finally disposing of it, but only for the purpose of informing the parties of the view I take of the case, in order that the patentee may have an opportunity, if he should be so advised, of taking some other course with a view to protect himself against the consequences of the mistake which has occurred. That there was a mistake is evident. It is quite clear that the application for the patent properly described what the patentee wanted, namely a patent for covering fibrous substances, and that the mistake arose in the Secretary of State's office for the Home Department, where, in copying, the letters "re" were prefixed to the word "covering," so that, from that period down to the time when the great seal was affixed to the patent, all the documents described the patent as a patent for "recovering" fibrous substances, instead of for "covering" fibrous substances. The patent having been granted with that word in it, the enrolment contained that word also. At a certain time, which is not very material for the present purpose, this error was discovered. An action having been brought by the patentee against a person alleged to have infringed his patent, it was discovered that the patent was not as the patentee intended, for "covering," but for "recovering;" and no doubt, after having been at the expense of procuring the patent, and after

(*d*) See these cases, *ante* 647, n. 1.

(*e*) It will be found on reference to the cases of amendment just referred to, that the amend-

ment of the enrolment was to make it correspond with the privy seal bill and the letters patent.

having disclosed to the public the nature of his alleged discovery, and after having thought himself secure in the enjoyment of the patent for some considerable length of time, it was a very great hardship on him to find, that, owing to an error made in one of the public offices, he should not be in a situation to maintain his action against the party whom he alleges to have infringed his patent. A.D. 1841.

On the other hand, it must be recollected, that the only evidence of the patent, accessible to the public, is the docquet book, kept at the Patent Office, and the enrolment, both of which contained the word "recovering;" and if, with a knowledge of nothing else, a party had proceeded to carry on business in a mode which would be no infringement of a patent for "recovering," but might be an infringement of a patent for "covering," it would be very hard if he were to be liable to an action for so doing, there being no public evidence of the patent which he is said to have infringed. There is, or may be, hardship, therefore, on both sides.

The patentee discovering that there was this error in his patent, takes the usual course for correcting that error; he applies to the Secretary of State for the Home Department, and procures the queen's bill to be amended by introducing the word "covering," instead of "recovering." A corresponding amendment is then made in the signet bill, and the privy seal bill is amended from that, with the memorandum of the proper officer of the Privy Seal office, that it was done in consequence of the amendments in the previous documents. Now, the privy seal bill is the authority under which the holder of the great seal puts the great seal to the patent. It is no other authority, and is issued for no other purpose whatever. It is of no authority to any other person, and becomes the authenticated mandate from the crown to deal with the great seal in a particular way. In this instance the privy seal bill has been amended; the object, and the only object, of such amendment being to give new instructions to the holder of the great seal, authorizing him to amend the letters patent, according to the memorandum found on the privy seal bill. The party obtaining that amendment, however, did not think proper to use it for this purpose, but passing by the great seal altogether, without any *recepti* from the Lord Chancellor, without any communication with the great seal, without any authority, he thought proper to apply at the Rolls, not for the purpose of altering the patent, over which the Master of the Rolls had no jurisdiction whatever, but for the purpose of altering the enrolment.

The privy seal bill an authority to the great seal only.

In the first place, that amended privy seal bill gave no authority to the Master of the Rolls to act upon it at all. It is not directed to the Master of the Rolls, it is directed to the Lord Chancellor, and it authorized the Lord Chancellor to deal with

In Chancery.

the patent only for the purpose of altering it according to the alterations in the privy seal; and so the Master of the Rolls considered the case when it was before him, at that time to which this judgment I have now in my hand applies, because he so described it. He says (*f*), "now, it is a most serious consideration, that I have no right or authority whatever, even if I had the letters patent here, to introduce any alteration into them. I am at present strongly impressed with the notion, that what is required to be done, cannot be legally and effectually done without the concurrence of the Lord Chancellor. I think the authority of the Lord Chancellor and of the Master of the Rolls, of both of them, required to do that which is now proposed to be done; that is, at least, my present impression, and it is my present impression so strongly, that I cannot think of acting in any way against it without a communication with the Lord Chancellor, in order that I may know what his view of the subject may be." Before that he says (*g*), "The other objection appears to me to be of a more serious nature. There can be no doubt that, whatever may be the form of making out the letters patent and of making out the record of the enrolment of the letters patent, it must be intended that they should correspond. And I am certainly, on the present occasion, asked to make the record of such a form and to introduce such alteration in it, however small, by obliterating the two letters 're,' that, upon the evidence which is now before me, when the alteration shall be made, the record will not correspond with the letters patent, because it is stated on the evidence that the letters patent contain 'recovering' instead of 'covering.'" Now, that is the view, then taken by the Master of the Rolls, and precisely the view I took myself of this case when first I heard it opened, and which I still continue to entertain, that by no possibility can it be permitted that the enrolment should differ from the letters patent. If there were any doubt upon that point on other grounds, it would be removed by a clause in the statute of Elizabeth (*h*), which enables parties, by producing the enrolment, to dispense with the necessity of producing the letters patent, that provision resting simply on the assumption, that the enrolment correctly represents what is contained in the letters patent.

The enrolment cannot be permitted to differ from the letters patent.

The title of the party derived from the letters patent, and the enrolment a mode of proving it.

The right, the title of the party, derived from the crown, rests on the authority of the letters patent, and the letters patent only, and the enrolment is only permitted to be used for the purpose of showing what that grant was, or rather, as the statute of Elizabeth recites, for the purpose of preventing the danger of attempts being made to alter the letters patent,

(*f*) See ante 654.
(*g*) See ante 654.

(*h*) 13 El. c. 6. See *Law & Practice, Tit. Statutes*.

which, being in possession of the party, were more likely to A.D. 1841. be attempted to be altered than could possibly be the case in the enrolment.

Now, what has been done? The party passing by the great seal, refusing to do that, or abstaining from doing that for which alone the alteration was made in the other documents, instead of applying to the great seal, to consider what under the circumstances might be done by way of relieving him from the difficulty he has got into with respect to his patent, goes at once to the Master of the Rolls, and obtains an order to alter the enrolment. The enrolment, therefore, now represents that a patent was granted as of the date at which the patent was originally granted for covering fibrous substances, whereas it is a fact known to both parties, and not disguised by the patentee, that it is a patent for "recovering," and that for the purpose, he describes his object to be, to give in evidence this enrolment as containing the grant of the crown.

Now I have communicated with the Master of the Rolls since the case was argued, and the Master of the Rolls entirely concurs with me in the opinion, as he expressed himself when he delivered the judgment to which I have referred, that whatever may be done in this case, nothing can be permitted to remain which will enable the party to produce an enrolment differing from the letters patent. The hardship of the case, therefore, is obvious, and it will be my duty, as far as I can, consistently with the rules which are laid down to regulate the conduct of the holder of the great seal in matters of this nature, to relieve the party, provided I can do it consistently, and without injury to others. It is for the purpose, therefore, of giving the patentee an opportunity of considering what course he may think proper to adopt, that I have mentioned the case this morning. What I propose therefore to do is, not to permit the enrolment to represent a patent that does not exist, but before I make any order for that purpose (perhaps I may be able to dispense with that necessity altogether), is to give the patentee an opportunity of following the regular course in cases of this kind, namely, of asking the great seal to do what the great seal may under the circumstances feel itself justified in doing for the purpose of correcting that which is obviously an error in the terms in which the patent was granted. What may be the result of that application, I do not at all anticipate; but the patentee may be assured, that he will in no event be permitted to avail himself of, or to give evidence of what the patent contains, by an enrolment which does not represent what the letters patent contain.

The appeal petition accordingly stood over, and the patentee presented a petition to the Lord Chancellor, praying that the

*Petition by
C. Nickels.*

In Chancery. letters patent might be made to accord with the privy seal bill as corrected. At the same time, however, the petition disclosed the fact, that the two first letters of the word "recovering" had actually been erased in the letters patent; but it was positively stated in affidavits, made in support of that petition, both by the patentee himself and by his agents, in whose custody alone the letters patent were stated to have been, that after diligent inquiry they were unable to discover when or by whom such erasure had been made.

July 12. Upon the last-mentioned petition coming on to be heard, *Tinney, Dixon, and Corrie*, appeared in support of it, and asked in the first instance, that the amendment might be made in the letters patent without resealing them, on the ground that the error was a mere clerical error, for which the patentee himself was in no way to blame; and that, unless it could be amended without resealing, the amendment would be useless, as that the patent would then take effect only from the date of the resealing.

Lord COTTENHAM, L.C.: You say, the error in this case is a mere clerical error; and so it is in one sense, but it is an error which goes to the very foundation of the party's title; and all the cases, cited the other day, of amendments of clerical errors in records, are cases of grants of property, or some interest in property, by the crown, in which the only parties concerned were the crown and the grantee; whereas, here, there are third parties to be considered. However, whether the crown has or has not the power of doing what you say it ought to do, is what we need not discuss, unless you can show me I have authority to do it. Now the great seal acts under the authority of the privy seal; and the instructions I receive from the privy seal are, to reseal the letters patent with the alteration. [The Lord Chancellor here took up a privy seal bill relating to another patent, which he had directed to be sent for, for the purpose of illustration, and proceeded as follows:—] What I now hold in my hand is a privy seal bill, which was first brought to me on the 19th of January, 1841, and afterwards again on the 3rd of February, for the purpose of altering the letters patent. When this privy seal bill was first brought to me, pursuant to the statute of Hen. 8 (i), this *recepti* was endorsed upon it: "Received the 19th of January, 1841." That was the date of the original patent—for the statute does not authorize me to put the great seal to any patent except as of the day on which the privy seal bill is brought to me; then some error was discovered in the patent, and very shortly afterwards, namely, on the 3rd of February, in the same year, it was

The great seal acts only under the authority of the privy seal bill.

(i) 27 Hen. 8, c. 11. See *Law and Practice*, Tit. *Statutes*.

brought back, together with the altered privy seal bill, and a A.D. 1841. docket in these words—"To be resealed for the purpose of inserting the words," &c. [the words of the alteration]; and the *recepti* upon that is, "Received the 3rd of February, 1841, for the purpose of resealing the patent for the insertion of the words," &c. [*Tinney*: Will your lordship inform me, whether the date of the alteration and resealing would appear upon the face of the letters patent, for if it would not, the alteration would answer the purpose of the patentee, although accompanied by resealing, and the patentee would be willing to take it in that way.] The date, of course, is not altered in the letters patent; but there is the *recepti* on the privy seal bill, to show when the resealing took place. If, however, you are content to have the amendment made in the ordinary form, I should like to know before we proceed further, upon what terms you are willing that the alteration should be made. There may be very good reasons why you should not have any indulgence, since I have not yet heard the other side. In the mean time let it be understood, that I shall certainly do nothing but what is usual, that is to say, I shall, at all events, only reseat the letters patent upon a privy seal bill being properly brought before me; and that I shall not even do that without taking care that it shall not prejudice other persons.

Letters patent being amended, their date is not altered.

I may observe that I had some doubt before as to the mode in which an alteration was to be made when the letters patent had been actually enrolled. I have since, however, been furnished with the only instance of the kind which I am told exists, and it was effected in this way. An application had been made to Lord Alvanley when he was Master of the Rolls, to alter the enrolment. He thought he could not do it, because it would make the enrolment vary from the letters patent; and afterwards, on communication with the Lord Chancellor, who thought the case was one in which an alteration ought to be made in the patent, the Master of the Rolls came into this court, and, under the authority of the Lord Chancellor, the patent having been altered was resealed, and then the Master of the Rolls made the enrolment correspond with the patent so altered.

Letters patent having been amended and resealed, the enrolment may be altered accordingly.

The case then stood over, in order that the patentee might consider upon what terms he was willing that the alteration, if allowed, should be made. On the following day it was again July 2. spoken to, when—

The LORD CHANCELLOR said, that the only terms on which he would entertain the application to amend the patent at all were, that the patentee should abandon, and pay the costs of, all proceedings then pending, and undertake not to bring any other action for the infringement of his patent up to that time.

August 3. *Tinney* having on this day stated that his client declined to accede to the terms which had been suggested—

Lord COTTENHAM, L. C.: That being the case, I decline to act on the application to amend the patent, and I have only to dispose of the appeal petition, and to restore the enrolment to its original state; for which purpose, as the document was in the custody of the Master of the Rolls, it will be necessary to make a joint order.

Order. The order, after reciting that the Lord Chancellor had called to his assistance the Master of the Rolls upon the subject of his orders bearing date the 27th and 30th days of March, 1841, and that it appeared that Christopher Nickels, the patentee, had not procured the letters patent to be altered according to the privy seal bill as altered, was as follows:—

Previous order discharged, and enrolment restored to its original state. “It is hereby ordered and directed, that the order made by his lordship the Master of the Rolls, dated the 30th day of March last, and endorsed on the roll on which the enrolment of the said privy seal bill is made, be discharged; and that the enrolment be restored to the state in which it was before such order was made, and that a copy of this order be endorsed on the said roll.”

Jan. 19, 1844. The parties having come to an arrangement about the costs, the Lord Chancellor and the Master of the Rolls made a joint order (k), whereby the amendment prayed was made in the letters patent, and the letters patent resealed, and the enrolment made in conformity with such amendment.

(k) *Order.*—The order, after reciting the circumstances of the above case, the preceding order and amendments, that the parties had entered into an arrangement whereby the costs had been satisfied, that the Lord Chancellor was of opinion the letters patent ought to be amended in case the enrolment in the custody of the Master of the Rolls were also amended, so as to be made conformable thereto, but that the Lord Chancellor did not think fit to make any order until he had called the Master of the Rolls to his assistance—that such assistance had been called in, ordered—that the privy seal bill, which had been amended, should be submitted to the Lord Chancellor, in order that a new *Recepi* might be written thereon for his lordship's signature; and with the consent of the London Caoutchouc Company, and the counsel for the petitioner undertaking to bring no

action for any infringement before the resealing, the Lord Chancellor ordered that the letters patent should be amended by inserting the word ‘covering’ for ‘recovering,’ and that the letters patent should be then resealed; and on like consent and undertaking, the Lord Chancellor and Master of the Rolls ordered, that the enrolment should be amended by inserting the word ‘covering’ for ‘recovering’ in the enrolment, in conformity with her majesty's warrant, the queen's bill, the signet bill, and the privy seal bill, already so amended by the proper officers, and that the proper officer should attend the Master of the Rolls with the said enrolment, for the purpose of such amendment being made in his presence. And that a copy of the order should be endorsed on the roll on which the amendment is made.

THE QUEEN v. NEILSON.

Cor. Lord Lyndhurst, L. C.

In Chancery.
Nov. 9, 1842.

This was a petition to the Lord Chancellor to stay proceedings in a writ of *scire facias* to repeal the letters patent of the defendant.

Proceedings stayed by L. C. on writ of *scire facias*.

The petition, having set forth the letters patent, bearing date at Westminster, 11th of September, 1828, to J. B. Neilson, for his invention of "an improved application of air to produce heat in fires, forges, and furnaces, where bellows or other blowing apparatus are required," and the specification (a), stated the conveyance of certain interests in the patent to other parties, the granting of upwards of sixty licenses, in respect of which considerable sums had been received, and the various legal proceedings to restrain infringements, and amongst others the four suits in the Court of Chancery, which had led to the trial of *Neilson v. Harford*, under a rule consolidating the four actions, in the Court of Exchequer, the judgment of that court in favour of the patent, and the perpetual injunction against the parties (b) in the four suits.

The Petition.

Semble, the writ of *scire facias* does not issue as of course.

Semble, two parties cannot have a writ of *scire facias*.

The petition further stated the grant of letters patent for Ireland and for Scotland, bearing date 1st of October, 1828, and that, about the time of the trial of the above proceedings in England, the petitioner discovered that a combination had for some time existed among the Scotch iron-masters to resist the said patent, and that an agreement (setting it out) had been entered into, whereby the parties bound themselves in a penalty of £1000 to institute, carry on, and adopt any proceedings, both judicial and extra-judicial, which should be recommended and concurred in by the majority of the subscribers thereto, to resist the enforcement of the rights under the said patent for Scotland. That the above agreement was signed by the partners of the Househill Company, against whom a verdict had been obtained; that a bill of exceptions had been tendered to the summing up of the learned judge, which had been decided in favour of the petitioner in the Court of Session, against which decision the Househill Company had appealed, and the appeal was then pending in the House of Lords. That in August, 1842, a writ of *scire facias*, tested of the 13th of June, to repeal the letters patent for England was issued, whereby the petitioner was sum-

(a) See the specification and the proceedings to which reference is made hereafter, *ante* 273—374.

(b) See *ante* 373.

In Chancery.

moned to appear in Chancery on the 2d of November, to show cause why the said letters patent should not be cancelled. That the above writ was not issued on behalf of any persons resident in England, but on behalf of the parties in Scotland who had entered into the above-mentioned agreement for contesting the patent. That the period of fourteen years, limited by the said letters patent, expired 11th of September, 1842, and all the privileges thereby secured then expired. That the writ, though tested the 13th of June, was not returnable until the 2d of November, that is, after the patent had expired. That the proceeding by *scire facias* is intended only to apply to the case of existing patents, and that the remedy it affords is only to direct the cancellation of letters patent which may be in existence at the time of the return of the writ, on the ground of irregularity in the original grant (c). That the said letters patent having expired before the return of the writ, the same was informal and irregular, and ought to be set aside, and that any proceedings upon the writ would be productive of great hardship to the petitioner, and that the parties who had sued out the writ could experience no injustice, being able to avail themselves of any ground of invalidity as an answer to the action.

The petition prayed that the writ might be set aside, and all proceedings thereon discontinued and stayed.

Sir W. Follett, S.G., *Bethell*, and *Campbell*, in support of the petition. This is an application on behalf of Mr. Neilson and his partners to be relieved from proceedings of *scire facias* instituted by persons in Scotland, against some of whom a verdict has been obtained upon the Scotch patent, to repeal the English patent, the validity of which has been so fully tried and established, and which patent has now expired. The term granted by the letters patent for England expired the 11th of September; the fiat of the Attorney General was granted in August; the writ tested as of the preceding term was not returnable until the 2d November. The Attorney General in the exercise of his discretion might be right in granting his fiat, because at that time there might have been an application to extend the term of the letters patent, but such is not the fact, and the writ is returnable into this court at a time when the letters patent have ceased to exist. The party aggrieved has no other course than to apply to this court; if the writ goes on he will be called upon to litigate the question without any legal object. The writ of

(c) See form of the proviso in the letters patent as to avoiding the grant. *Law & Practice*, Pr. F., XIII.

In the course of the argument it would appear to have been conceded, that the proceedings on a writ of *scire facias* might go on after the expiration of the letters patent. There can be no doubt that

an action may be brought after the expiration of the letters patent for any infringement committed before their expiration. The case was also likened to that of a lease, of which the covenants might subsist after its expiration, and against which equity would grant relief if there had been fraud in the original grant. See post 672-3.

scire facias is a prerogative writ, it is not a writ in this case de- A.D. 1842. mandable by the subject; if the crown had granted the same market to two different persons, the party prejudiced by the second grant might, according to the usage which then prevailed, have a right to come to the crown and ask for the repeal of the second patent. But this case is not one affecting individuals under two different grants, and the only ground upon which this can be asked for is, that the crown has been deceived in its grant. The crown granted a monopoly by which the subjects may be conceived to have been suffering an injury during its continuance, but that monopoly has now ceased. There is no legitimate ground for issuing this *scire facias* on the part of the crown, nor have the parties who obtained it any legitimate ground; they have perfectly legal means of defending themselves, and there is no reason why parties subjected to legal proceedings on the patent for Scotland should institute proceedings in England. [Lord *Lyndhurst*, L.C.: You ask that the writ may be vacated and set aside, and proceedings stayed. It issued correctly.] It might have issued correctly, but it may be quashed in the same way as a commission of lunacy. [Lord *Lyndhurst*, L.C.: A commission of lunacy is superseded although originally properly issued, because it is not proper that its operation should be continued. The staying proceedings will answer the purpose.] The ground of issuing these writs is stated 4 Inst. 88 (d), whence it appears, that they are issued by the royal prerogative, when the crown has granted something which it had the power to grant, but which was granted upon false suggestion, to prevent the crown being aggrieved by the grant, and to prevent injury being done to any other person by the continuance of that grant; but the monopoly in this case having expired, there is no ground for these proceedings. This question would appear to have arisen for the

(d) The following is the passage referred to as expressing the law upon the subject: "This writ of *scire facias* to repeal letters patent doth lie in this ordinary course of justice in three cases. The first, when the king by his letters patent doth grant by several letters patent one and the self-same thing to several persons, the former patentee shall have a *scire facias* to repeal the second patent. Secondly, when the king granteth any thing that is grantable upon a false suggestion, the king by his prerogative *jure regio* may have a *scire facias* to repeal his own grant. Thirdly, when the king doth grant any thing which by law he cannot grant, he *jure regio* (for advancement of justice and right) may have a *scire facias* to repeal his own letters patent." According to the first case here mentioned, if two letters patent be granted for the same thing, the former patentee shall have a *scire facias*; but in the case of an invention, how is it to be determined that they are

the same? and if the same, the first letters patent may be equally invalid. In any other case, except that of two rival grants, it would appear from the above that the crown and not the individual is to be the party at whose instigation the *scire facias* should issue.

It is also material to observe, that in the case of two grants of the same thing, the second patentee cannot have a *scire facias*, the former patentee alone being entitled to that. Dyer, 276.

In *Brewster v. Weld*, 6 Mod. 229, it is said that a person prejudiced by the patent may have a *scire facias* as well as the king; but that was a case of the grant of a living.

It was doubted in that case whether a writ sued out of Chancery could be returnable in another court, but if so returnable it was held that such court must judge of its regularity. See further, 2 Saund. 72 a.

In Chancery. first time, but it seems unreasonable that litigation should go on for avoiding a term which has expired. An application of this nature is to the discretion of the court. There is no analogy between a proceeding upon *scire facias* in the name of the crown and a proceeding in the name of a private individual. Could a landlord come into equity against a tenant to set aside a lease on the ground of fraud or misrepresentation, or any equitable ground, after the term of years granted in that lease so sought to be set aside has expired? [Lord *Lyndhurst*, L.C.: Suppose a lease which had been obtained by fraud to have expired, the covenants might still subsist, and proceedings be had upon them. Would not equity interfere to restrain the parties from proceeding upon those covenants where the transaction was fraudulent?] There is no analogy between the two cases of the crown and a proceeding by a private individual as suggested. Mr. Neilson, during a term of fourteen years, has enjoyed peaceable and undisturbed possession against all the world, and when his right has been invaded he has asserted and maintained it. The monopoly had ceased before the day on which the defendant was called to answer to the writ; there is no longer any ground for it. The vexation which the public sustain by the monopoly is the only ground upon which the writ is issued by the crown on behalf of the public.

As to the jurisdiction, this writ issues from the common law side of the Court of Chancery—it is returnable in Chancery; and being issued and returnable in that manner, the Chancellor has jurisdiction. In some cases, all the further proceedings are before the Chancellor, as, if there be a demurrer; and it is only when there are issues in fact that the record is sent to the Court of Queen's Bench (e). The writ in the present case is not due *ex debito justitiæ*; it is in the discretion of the crown in all cases except where there are two patents inconsistently granted to several parties; then the first party has a right *ex debito justitiæ* to a writ of *scire facias* to repeal the patent granted to the other party. It is not said that the writ improperly issued, and that it should be quashed; but only that circumstances have since occurred making it unreasonable and improper that further proceedings should continue. If the crown be bound to see that the public are not unduly vexed by a monopoly, it is also bound to protect the patentee against unnecessary litigation.

The proceeding by *scire facias* is one which the subject obtains of the grace and favour of the crown, and the attention of the crown should be drawn to all the circumstances that might

(e) See 2 Saund. 6 a, where it is said, that in case of a demurrer and issues in fact judgment on the whole is given in the Queen's Bench.

govern its discretion in the matter. When a *scire facias* is A.D. 1842. applied for, the queen's warrant directed to the Attorney General is obtained upon petition, and the Attorney General may, or may not, grant his fiat, just as it shall appear to that law officer that the crown should interfere or not (f). The proceeding is analogous to a proceeding upon a writ of right, which depends altogether on the will and pleasure of the law officer of the crown. It has been said that the Attorney General exercises no discretion except as regards the security for costs, but the question is, what ought to be done? The theory is perfectly clear. The crown, it is said, has been induced to do a wrong; the remedy provided for a complaint of that sort is a petition for a process. The crown refers the matter to its law officer, and if that law officer thinks fit to advise the crown not to interfere, the subject has no remedy. In all cases, as the passage in the Institute shows, the proceeding goes on the notion that it is a complaint against the crown, except in cases where the controversy lies between two grants of the crown, that is, when the question is, which of two grants shall prevail, and then it is a matter exclusively between subject and subject, and in that case only the writ is said to be granted *ex debito justitiæ*, because it is a matter not concerning the crown, as complained of, but a matter merely concerning the rights between subject and subject. In all other cases it falls precisely under that rule of our law, which does not permit a complaint to be made against the crown, except with the permission of the crown. If that be so, the Attorney General has a right if he chooses to refrain from issuing his fiat, without which no proceeding can be taken. There is no other case known to the law in which there is any impediment to granting the original writ, except in a case of this description, and the interposition by the Attorney General must be considered as allowed merely for that purpose. If that be so, it is clear that the writ might have been denied to the subject. But the Attorney General having granted his fiat, and the writ having been obtained, on whom does the guardianship of the prerogative devolve? This being a prerogative writ, one which concerns the prerogative of the crown, and one that in theory complains of the queen herself, the question is, who has control over the proceedings, supposing a case to justify such control to arise after the fiat has been granted? Control must exist somewhere over every proceeding. Either your lordship may refer it back to the Attorney General to consider, whether the proceedings should go on, or whether the fiat should be revoked; or, your

(f) It is said, 2 Saund. 72 p, that a memorial is presented to the crown for a *scire facias*, and that there is a warrant to the Attorney General for suing it out, and that the Attorney General then

grants his fiat. This practice has been abandoned, but at what period, or on what grounds, is not noticed in any of the books of practice.

In Chancery. lordship having the custody of the writ, before whom it is returnable, and in whose court the issue is to be made up, may make that order which shall seem meet for preventing or putting an end to all further proceedings. Your lordship has entire control over it in two capacities,—first, the guardianship of the prerogative of the crown, which if it be taken out of the hands of the Attorney General must of necessity be in the hands of your lordship. Secondly, the writ is returnable here, the defendant must plead here, and the issue is made up here, and the *venire* issues from the Petty Bag Office, which is your lordship's court, and the issue is sent by your lordship into one of the common law courts to be tried (g). In conformity, therefore, with all judicial proceedings, the control of these proceedings is in your lordship. In the case of the *Queen v. Aires*, (10 Mod. 259,) it was held, that upon issue joined in Chancery, that court must award the *venire*. It depends entirely on your lordship's discretion, whether the issue is permitted to be made up, or whether proceedings be stayed directly or indirectly, as by giving unlimited time to plead. The Attorney General might well grant his fiat at the time when the record was in existence, but supposing the record to be made up and the *venire* to be awarded, the court of common law will be speculating on that which has ceased to exist. The complaint is, that the crown is injured through the medium of the subject having a monopoly which ought no longer to exist. [Lord *Lyndhurst*, L.C.: Suppose the judgment on the *scire facias* to be against the patent, would the proceedings for account go on in this court? Would not that be a ground on which to file another bill? Would this court, under such circumstances, allow the account to go on and be taken?] [Wakefield, Q.C.: A supplemental bill, in the nature of a bill of review, would reach the case.] The court would not permit these circumstances to be brought up except on a case where the proceedings had been taken by the defendant himself, and in due time, and for the purpose of protecting himself in a legal manner against the proceedings meditated against him. And no proceedings of this kind could have a retrospective operation, to recover back money actually paid for licenses, or money due in respect of damages while the right existed and was unquestioned. If it be a proper principle of our jurisdiction, that it will always give credit to a patent, and act on a patent which has remained unquestioned for a considerable period of time, it would be most unjust to

(g) It appears undecided whether the judgment is given in the Court of Queen's Bench, to which the issues are sent, or whether the record is to be remanded into Chancery for final judgment. See 1 Eq. Cas. Abr. 128.

It has been said, referring to *Jefferson v. Morton*, 2 Saund. 6 a, that judgment must be given in the

court which tries the issue, and that the record was not to be remitted to Chancery for judgment. And in *Jefferson v. Morton* it is also said, that a record once sent to the Court of Queen's Bench always continues there; 2 Saund. 27. See *Barton's case*, Latch 3; 1 Eq. Cas. Abr. 128.

permit a party to question a patent after its term had expired, A.D. 1842. for the purpose of allowing him to protect himself against Chancery proceedings. The question therefore is, whether there is any room for the judgment being pronounced; would it not be absurd to direct a record which has expired to be vacated? Is there any possibility of such a judgment? Is a *seniſ* to be awarded for the purpose of trying a matter which has been put an end to, or can any complaint be justly made when the time which the crown has prescribed is now at an end? This is a desperate proceeding resorted to for a bye end. Your lordship having the care of the prerogative will not permit it to be put in force in this manner. It may be referred back to the Attorney General, as in the case of charity informations, to see whether the matter should be further prosecuted. It appears from *Brewster v. Weld* (6 Mod. 229), that if a writ of *scire facias* be issued out of Chancery, returnable into Chancery or any other court, the court into which it is returnable must exercise the jurisdiction over it, and every proceeding on that writ must be exercised by this court. However regular the proceedings are, the court will sometimes stay them, as where the cause of action is frivolous, or there has been a want of good faith (*h*), and there can be no doubt of the authority of the court.

LORD LYNTHURST, L. C.: I want to know whether the Attorney General grants his fiat in all cases of *scire facias*. Suppose two patents granted to two different persons for the same invention, and that a *scire facias* has been applied for by one party to repeal the letters patent of the other, in such a case, where the writ issues *ex debito justitiæ*, is the Attorney General's fiat necessary (*i*)?

SIR F. POLLOCK, A. G.: It seems to me, that in the case of two patents for an invention, the ground of the *scire facias* would not be so much that of one patent standing in the way of the other, as that the first patent showed the second not to be

(*h*) See Tidd's Practice, 516, & Chitty's Archbold, 7th ed. 994. The case of *Rowe v. Brenton* was referred to in the course of the argument as one in which the court had stayed proceedings from term to term, on the ground that the party was about to make a wrong use of the action with regard to other proceedings before the court.

(*i*) The fiat is requisite in all cases. 2 Saund. 720. The books of practice, 2 Rich. Prac. C. P. 391—398, give the form of a memorial to the crown for a warrant to the Attorney General to authorize a writ of *scire facias*; this is referred to the Attorney General, and on his report the warrant is made out, and a draft of the writ, to which the Attorney General subscribes his fiat, as follows: "Let there be a writ of *sci. fa.* issued according to the tenor within mentioned." According to the present practice the memorial is not used, but

on application at the Petty Bag the writ may be obtained, almost, as it would appear, of course; but a practice has been recently introduced of entering a caveat at the chambers of the Attorney General against the issuing of the writ, upon which the parties come before the Attorney General.

In a recent case (*The Queen v. Newell*) Sir F. Pollock, A. G., on a petition for relief against certain suggestions in a writ of *scire facias*, which had regularly issued, decided that he would direct a *nolle prosequi* to be entered as to certain parts of the writ if the prosecutor insisted on retaining them.

The Attorney General has afforded similar relief in other cases, but his jurisdiction has till recently been exercised principally on the subject of security for costs. See ante 64.

In Chancery. new (k). I never knew a *scire facias* except in the case of a patent for an invention. The only case which I recollect of any thing like two grants having been issued, occurred, not in this country, but in the colony of New South Wales. The Attorney General of that colony had refused to permit a *scire facias* to issue, for the very purpose of trying, whether land granted by a second grant had not been granted before. Upon a case which came afterwards before my learned friend the Solicitor General and myself, it appeared that the late law officers of the crown had advised that the Attorney General ought to allow the *scire facias* to issue, from which I presume it was considered that the subject had not a right *mero motu* to have a *scire facias*.

The writ of *scire facias* does not issue as of course.

Lord LYNDHURST, L.C.: It strikes me at present that the court has power to stay proceedings, in analogy to the course of proceeding in the Court of Queen's Bench, where the action is vexatious. Though the right be *ex debito justitiæ*, the court may stay proceedings. I consider I have authority to stay the proceedings if the facts warrant it.

Sir F. Pollock, A.G.: All courts exercise the authority of staying proceedings until security is given for costs in certain cases, or where another action is pending for the same cause of action, or where a party will not consent to do what is just or to do what is right respecting issuing a commission for the examination of witnesses. I want to use those instances to show what are the grounds upon which the court will interfere. If an Attorney General were to permit a *scire facias* to issue without taking sufficient security, or if, after it had issued, the bail or security had failed, so that the party was without security, there can be no doubt of the propriety and authority of this court interfering to stay further proceedings until proper security be given.

Lord LYNDHURST, L.C.: There might have been very good grounds for issuing the *scire facias*, but these reasons may have been at an end from circumstances. There might be no ground for continuing it. It is not at all a question interfering with the authority or jurisdiction of the Attorney General, because there may be an altered state of circumstances. The writ was applied for before the expiration of the time. There is nothing in the fact itself of the letters patent having expired because an action may be pending. [Sir F. Pollock, A.G.: It is quite clear an action may be brought against any person who prior to the expiration of the patent, had, in point of fact, used the invention or pirated it.] But there is no suggestion of any such

(k) How is the question of the identity of the inventions, and consequent want of novelty of the second patent, to be decided, so as to let in this ground for issuing the writ? Both patents might

be equally invalid for want of novelty. According to the theory of this subject (4 Inst. 88, & case 667, n. d) the writ must be presumed to be issued by the crown.

action. It is not denied that the application is made on behalf A. D. 1842. of the Scotch iron-masters. The parties to the suits in this court do not complain; they acquiesce; they have had an opportunity of trying the question very deliberately. Why should the *scire facias* be continued in England with reference to those parties who have no interest in the patent in England? If the proceedings had been to repeal the Scotch patent, there being a case depending in Scotland, and an application by these parties who are interested to repeal the Scotch patent, I cannot say, if the patent had been repealed, that the court of Scotland could not take notice of that cancellation so as to affect the pending case, notwithstanding a judgment in the House of Lords: it would be a new state of things. It does not appear that there has been any infringement in England, except the infringements which are the subjects of the suits here, and the parties to them do not complain. It is not suggested that there has been any infringement, and why should the party be put to the expense of trying the validity of the English patent, the term having expired? If the patent were an existing patent there may be an infringement, or parties may be deterred from using it. With reference to the case pending in the House of Lords, and the other suits still pending in the Court of Session, they should have obtained a *scire facias* to repeal the Scotch patent. The repeal of the English patent would only be an argument. [Sir F. Pollock, A. G.: Every person in the realm is interested in the continuance of the letters patent. The English are interested in the Scotch patent, and the Scotch in the English patent. After one party has sued out a *scire facias*, another could not do it.] If the House of Lords should decide against the validity of the patent, there may be some grounds for the application. Let this stand over until that decision.

Two parties
cannot have a
scire facias.

Order accordingly.

APPEAL FROM THE COURT OF SESSION.

THE HOUSEHILL COAL AND IRON COMPANY (*Appellants*).
JAMES B. NEILSON AND OTHERS (*Respondents*).

[In the House of Lords, Feb. 20, 21, 27 & 28, A.D. 1843.]

This was an appeal from a judgment of the Second Division of the Court of Session in Scotland, disallowing a bill of ex-

In the House of Lords. ceptions (a) tendered by the appellants, who were the defenders in the court below, to the rejection of certain evidence by and to the summing up and directions of the learned judge, the Lord Justice Clerk, on the trial of the cause. The action was brought by the respondents, the pursuers in the court below, for the infringement by the Househill Company of the letters patent for Scotland, granted October 1st, 1828, to J. B. Neilson, for his invention of "the improved application of air to produce heat in fires, forges, and furnaces, where bellows or other blowing apparatus are required;" and the issues adjusted and settled by special interlocutor of the Second Division of the Court of Session, and ordered to be the issues to try the cause, were as follows (b):—

Issues. 1. Whether, in the course of the year 1840, and during the currency of the said letters patent, the defenders did, in or at their iron works at Househill, by themselves or others, wrongfully and in contravention of the privileges conferred by the said letters patent, use machinery or apparatus substantially the same with the machinery or apparatus described in the said specification, and to the effect set forth in the said letters patent and specification, to the loss, injury, and damage, of the pursuers. Or, 2. Whether the invention, as described in the said letters patent and specification, is not the original invention of the pursuer, the said J. B. Neilson. 3. Whether the description contained in the said specification, is not such as to enable workmen of ordinary skill to make machinery or apparatus capable of producing the effect set forth in the said letters patent and specification. 4. Whether machinery or apparatus, constructed according to the description in the said letters patent and specification, is not practically useful for the purposes set forth in the said letters patent.

Counter-issues.

By the Judicature Act (6 G. 4, c. 120, s. 8), it is enacted, "that the parties are to give in the one a condescendence, the other an answer or mutual condescendence, setting forth, without argument, the facts which they aver and offer to prove in sup-

(a) The bill of exceptions set forth the issues adjusted to try the cause, the warrant for the letters patent, the letters patent and specification, the whole evidence given at the trial, and the direction of the learned judge in his summing up to the jury. The form of the bill of exceptions has been adhered to as closely as possible in the following report. The reader is referred to the Printed Case in the House of Lords for a full account of all the proceedings in this case, and for the judgments of the Second Division of the Court of Session on the bill of exceptions, in which are contained much valuable information on the practice as to issues in the Scotch Courts. The proceedings at the trial have also been printed.

(b) The specification was the same as that enrolled under the letters patent for England, and

273. The grant of the letters patent, the enrolment of the specification, and the joint interest of all the pursuers in the letters patent, were ordered to be admitted. The pursuers claimed damages, both by way of profits and for the infringement.

The above forms of issues as framed by the Lord Ordinary were, after considerable discussion before the judges of the Second Division, settled as the proper issues to try the cause. The case of *Astley & Taylor* (1 Shaw's Ap. C. 54) was referred to as showing the form of issues sustained by Lord Eldon in cases of this nature; but it was held, that this was not such a decision as precluded the court from reconsidering the proper style of issues applicable to questions of this nature. See the paper No. 11, in the printed case for the appellants.

port of the summons and defences, and in such condescendence, A.D. 1843. answers, or mutual condescendence, the parties shall, in substantive propositions and under distinct heads or articles, set forth all facts and circumstances pertinent to the cause of action or defence, and which they respectively allege and offer to prove." Directions are thereafter given in the 10th section for the adjustment and authentication of the record, and it is enacted that the record, so made up and authenticated, shall be held as "foreclosing the parties from the statement of any new averments in point of fact." And, in like manner, the relative act of sederunt requires, that "parties shall set forth in separate and distinct articles the whole facts they aver and offer to prove."

In pursuance of these enactments the defenders set forth on the record various facts as grounds of defence, of which the allegation as to prior use is the only one material to be stated here. They alleged the patent to be void and ineffectual, because the application of heated air to produce heat in fires, forges, and furnaces, was known and publicly practised prior to the date of Mr. Neilson's patent. That the invention now claimed was known and practised prior to the date of his patent both in England and Scotland. In particular, it was among others practised by the late Mr. Dawson, of the Low Moor Iron Works, in Yorkshire; by Mr. Wilkinson, of the Bradley Iron Works, in Staffordshire; and also at the Horsley Iron Works, in that county (c). The pursuers denied that the patent was void on any of the grounds, and alleged that the application of heated air, as averred by the patent, was known and practised in England or Scotland, and that the inventions referred to were an anticipation of Mr. Neilson's.

The defenders, in the court below, had delivered a note of objections, stating user at other places than those mentioned in the record, and, among others, user at Irvine. On the counsel for the defenders calling evidence to prove the user at Irvine, the counsel for the pursuers objected to its admissibility, and the Lord Justice Clerk sustained the objection, on the ground—
Evidence of user at places not named in the record rejected.

1. That a paper of objections, lodged in process No. 24, with notice thereof before the record was closed, cannot supply defects in the averments in the record on which parties agreed to close the record, in terms of the statute, on the 22d of February, supposing that in such paper of objections there had been any such averment as in this case would be necessary in the record. 2. On the ground that no proper notice is given on the

(c) Reference was also made to the paper by Mr. J. Sadler, in Nicholson's Journal for April, 1798 (*ante* 275), to Chapman's invention in 1825 (*ibid.*), to the patents of Stirling (*ante* 275), and

Botfield (*ante* 274), and to an invention by Mr. Jeffries, of the Grove Foundry, Southwark, in or about the year 1825, for a mode of applying heated air in its transit in pipes.

In the House of Lords. record of the proposed line of inquiry generally, and no notice whatever of prior use of the invention at a smith's at Irvine, by the application of hot blast to a smith's fire; and 3. On the ground, that in an inquiry as to the anticipation and prior use of an invention, by instances of the practices of individuals, going back to twenty years, it is essentially necessary for the interests of the patentees and ends of justice, that the record should contain such information as shall enable the patentee to be able to meet by inquiry these cases, and to investigate the character, purposes, and objects, of the practices to be proved against him, in which the prior use of his discovery and invention is said to be found. The same objection was held to apply to any other evidence of the same character.

Exception First. (1.) The counsel for the defenders thereupon excepted to the above judgment, and rejection of the evidence tendered, and line of inquiry proposed to be entered.

The case on the part of the pursuers and defenders having closed, the learned judge directed the jury in point of law as follows:—

Direction to the jury. Lord Justice Clerk HOPE: Gentlemen of the jury; You will observe that there are two sets of issues in this case—one set is alternative, as to which the *onus* is wholly on the defenders. As to the issue for the pursuers, a *prima facie* case is sufficient. They have chosen in the conduct of the cause to anticipate the defenders' case, by leading their own evidence on those issues in the first instance; but the result is the same. As to the second set of issues, the defenders are pursuers. When a party complains of the infringement of a patent, he exposes it to challenge at the instance of the defenders.

The issue as to the infringement assumes the validity of the patent. The first issue assumes the validity of the patent, as a point which may, in the first instance, be easily proved, or may be taken on the simplest evidence; and then asks, "Whether in the course of the year 1840, and during the currency of the said letters patent, the defenders did, in or at their iron works at Househill, by themselves or others, wrongfully, and in contravention of the privileges conferred by the said letters patent, use machinery or apparatus substantially the same with the machinery or apparatus described in the said specification, and to the effect set forth in the said letters patent and specification, to the loss, injury, and damage, of the pursuers?" Perhaps it might be better in many such cases in the charge to take the defender's issues first. But in this case, I do not think that that course would present the case in a fair aspect to you. I think it necessary to explain the full bearing of the law on this first issue as to this particular patent.

My first duty, then, is to call your attention to this patent—chiefly in reference to the first issue. I may have to allude, in anticipation, to the defenders' three issues. But I shall after—

wards speak to them separately. On the patent, my remarks A.D. 1843. will be partly law, partly observations for your assistance. The first point is, what does the patent claim? To what does it apply? Does it apply to the heating of air?—to the mode and way in which that effect shall be accomplished?—or to the use and application of air to be heated at a particular stage of the process; to the use and application of hot air, as the blast which is to enter the furnace, so as to increase heat in the furnace? The importance of this point you must see. If the mode and way of heating the air is claimed, then the defenders argue that the patent would claim—1. What is not new, unless there is some particular contrivance in the mode of heating. 2. What is not described in such terms as truly to form any particular process at all. Or, 3. (for the defenders, not very consistently, state also this objection,) It describes one mode of heating the air, viz. in one large vessel, to be increased in bulk in all its diameters or sides proportionally; so that for a large blast there must be a large vessel of vast dimensions in all its sections—as one witness said, a large room, or a small room.

I have much doubt, whether the objection as to the patent claiming too much, is within the issues. The pursuers do not profess to claim an invention for heating air. If the defenders intended to contend that the patent did, however, contain such a claim, and on that account was void, they might have stated this plea to the court, before and in bar of trial. I think they were bound to do so; or they might have made it the ground of substantive issue. The way they get at the point now is by saying, we insist that this is the reading of the patent, and if so, then the objections apply; for, on that view of the patent, viz. that it applies to the mode or process of heating air, it is not a good patent. My own opinion is, that this point is not raised—competently raised—under these issues; and holding that opinion, it is right that I should give the pursuers the benefit of it (*d*). But, at the same time, it is expedient that no point in this case should not be embraced in any bill of exceptions which either party may wish to present. And on that account, and partly also because the defenders may have some countenance from some uncertainty of proceeding in a prior case (*e*), I shall

The objection that the subject-matter of the patent is for a principle, is not open upon the issues of want of novelty, or insufficiency of the specification.

(*d*) This point was attempted to be raised on the appeal in the House of Lords under the second, third, and fourth exceptions (*post*), but their lordships having in the course of the argument intimated their opinion that the objection, that the patent claimed a principle, was not open under the issues, the objection was abandoned by the counsel for the appellants.

(*e*) In the case of *Russell v. Chrichton*, ante 552, which was an action for the infringement of the pursuer's Scotch patent for the "improvements in manufacturing tubes for gas and other purposes,"

(ante 455,) and in which it was held, that in an action by the holder of letters patent, concluding for interdict and damages, the patent afforded *prima facie* evidence of the originality of the alleged invention, but that the defender was entitled to take an issue of denial of the invention. It was also held that, under the usual issues of infringement and denial of the originality of the invention, an objection to the patent, founded on the vagueness of the specification, was not duly raised. 1 D. B. & M. 893. The precise objection wished to be raised in that case would

*In the House of
Lords.*

The construction of the patent is for the court, the intelligibility for the jury.

The title of the patent discloses the object of the invention.

assume at present the competency of this objection. If this matter ought not to be taken as included in the issues, the pursuers can also take an exception to my entertaining the point at all; and my own opinion is distinctly, that the point should not be entertained under the present issues. But taking this matter as open to the defenders, then the question, what the patent truly claims, is a point for the court. The construction of the patent to that extent, and on that question, is matter of law for the court. The intelligibility of the patent, to use an expression of Lord Eldon's, is for the jury (*f*). But the inquiry, what is the subject-matter of the patent, is a question of law, and for the court. It depends upon a great variety of matters, settled by previous decisions, on the style and form of specifications, their title, structure, and the legal import of their phraseology. It is not a question fitted for each jury in each case, else there would be no fixed law on the subject. But the meaning and intelligibility of the actual description in the particular specification is for the jury in each case, taking the specification with the evidence of practical and scientific men in that department of arts and manufactures; and the issues here assume that the intelligibility of the specification is for you.

Let me now explain the patent and specification. The title of the patent—"an invention for the improved application of air to produce heat in fires, forges, or furnaces, where bellows or other blowing apparatus are required." That is the object of the patent, that is what the law calls its title; the parties are entitled to maintain that the specification ought not to go beyond it. On the other hand, the patentee is justly entitled to say, that the presumption is that he did not mean to go beyond it. Observe those terms, "an improved application of air to produce heat in the furnace or fires." The effect here stated and claimed is, the effect on the fire or furnace, not on the air itself, though by heated air. There is no object stated in reference to the state or quality of the air, except as to the result of producing heat in the furnace. This is most material for you to keep in view in considering what meaning is to be put on the practical directions in the specification. If the specification clearly means throughout to claim, as the improvement, increase of heat in the furnace—then, of course, it will be for you to consider, whether you can so construe particular expressions respecting "the effect," as to interpret them to allude to a different

appear to have been, that the specification covered the old mode of manufacturing gas tubes. If that were the construction of the specification, which is for the decision of the court, that objection would be clearly admissible, as being the very issue, namely, the originality of the invention claimed. See *per Alderson, B.*, *ante* 129, as to the letters patent being *prima facie* evidence on

the part of a plaintiff; and in *Walton v. Peter*, *ante*, as to the proper plea to raise the question, whether the invention is the subject-matter of letters patent.

(*f*) See *ante* 350 for the proper construction to be placed on these words of Lord Eldon, and the observations of the Lord Justice Clerk at the conclusion of this paragraph.

effect than that which is the object of the patent. It is not an A. D. 1843. improved mode of heating air that is claimed, but an improved application of air to produce heat in fires. The air was previously applied cold in order to produce heat—to produce that same result in a better and more effectual way, Neilson's invention is an improved application of air. How the air is to be applied in an improved manner, the specification is afterwards to tell us. Hence, I have to state to you, in point of law, that the object and summary of the invention is this. I think a correct title does not profess to include the mode of heating the air, that any mode of heating the air under blast is within the professed object and title of the patent, provided that subsequent words of practical direction in the specification do not restrict the claim to one particular mode of heating the air. But the specification, although such is the object, and the only object of the patent, might have gone too far, and been liable to another objection taken by the defenders, if it should turn out to be a patent only for an abstract philosophical principle.

Turn now to the specification. The specification and patent are to be taken together as one instrument—and I give you this as a suggestion in common sense—though it is, nevertheless, a direction in point of law, viz. the terms are to be understood in the plain, ordinary, and popular sense of the terms used, unless the usage of the trade in question has fixed a peculiar meaning on the terms, or the context necessarily gives another sense than the plain, ordinary, and popular sense. The general title is the same as in the patent. Then there is the statement of the object; it quotes, you will observe, the words in the patent: the letters patent are for “my invention for the improved application of air to produce heat in fires, forges, and furnaces, where bellows or other blowing apparatus are required.” Then there is the condition under which he gets the patent, in which letters patent there is contained a proviso, obliging me, “the said J. B. Neilson, by an instrument in writing, under my hand and seal, particularly to describe the nature of my said invention, and in what manner the same is to be performed.” Then, at the commencement of the specification, it goes on, “Now, know ye, that in compliance with the said proviso, I, the said J. B. Neilson, do hereby declare”—he must comply with it in order to satisfy the law; then he repeats the terms of his title; he says—“that my invention for the improved application of air to produce heat in fires, forges, and furnaces, where bellows or other blowing apparatus are required, consists.” So here he repeats, in the general terms of the patent, the object of his invention. Then he says, “consists in introducing into, and applying to, fires, forges, and furnaces, atmospheric air in the following manner.” I think it is of great importance in telling you what the patent does not claim, as this is to be considered by the court, to men-

The letters patent and specification constitute one instrument, and are to be interpreted according to the ordinary sense of the terms.

*In the House of
Lords.*

tion, that it does not here say it is heated air, but it is introducing atmospheric air in the following manner; the air is to be heated, as you will see presently; but you will observe, it consists in introducing and applying "atmospheric air in the following manner." Now these terms I hold to be important; they relate distinctly to the introduction into and application of air to the fires. This marks very plainly the coherence with the patent of the specification. Then the blast is material to be produced; it is admitted that the patent is not meant to be applied to that. Then he begins with the following particulars: "1. The air in blast is to be passed into an air vessel or receptacle before it goes to the fire. 2. That vessel (of sufficient strength) is to be heated." You would observe, that some of the defenders' witnesses always interposed—nothing is said of heating the air. I must say, plainly, that whatever else is thought of the patent, it would be an outrage on common sense to pretend that the contrivance is not to heat the blast, and so they admitted this was a necessary inference—a distinction to the practical man without a difference; if red hot, it is said, so much the better; but that is not essential. 3. The materials of the air vessel are said to be not important—iron best. 4. Size is not fixed; though some proportions are given, and increase in size and numbers pointed at as necessary. I am going over some particulars at present which must be for your consideration; but I must state them, in order to explain to you what the patent does claim; I am not prejudging the points to be left to you. 5. Then he says, "the form and shape of the air vessel is immaterial to the effect." 6. He says, "the manner of applying heat is immaterial, if you keep up the air to a proper temperature." He says, "the form and shape are immaterial," and he says, "the manner of applying the heat is immaterial." This is of great importance in regard to the defenders' evidence.

Construction of
the specifica-
tion.

On all these passages, the question arises—Immaterial to what? important to what? This is a point on the intelligibility of the patent. Some of the witnesses of the defenders say, this means effect in heating air during the blast. On that view the specification is not only untrue, but absurd, and ludicrously so—framed in utter ignorance. One witness says, this means immaterial to economy, and in that sense of the term the sentence is still more absurd. Now, these are singular illustrations of ignorance and absurdity—if such should be your view—to find in a patent, under which such a host of witnesses conceive there is contained the discovery of a physical principle of great novelty, and of unspeakable importance in point of utility. Whether, in saying these things, he has given wrong directions, which will mislead practical men, is another matter, on which I shall take your opinion. But I am at present only considering what he says, and in the question of what

he claims or does not claim in the specification, it is important and necessary to see what he says, and what he professes to claim. It may be, that a specification truly claims more than a party says and professes to do. But the legal presumption is, that he does not claim, that which he says he gives no directions about, as immaterial to his object, *i. e.* the effect he has in view to produce, provided you obtain the agent by which he means to work, *viz.* heated air. A. D. 1843.

I have stated the grounds of my opinion on this first point, because the observations I have made may be of use to you when you deliberate on the specification, in regard to the questions which belong to your functions on it. I am of opinion, that Neilson does not claim as any part of his invention the mode or manner, or profess to describe any mode or manner of heating the air under blast, which is to be passed into an air vessel interposed between the blowing apparatus and the fire. I hold, in point of law, that this is no part of his claim under the patent or specification. Whether the specification is bad on this account, as resulting in a patent for an abstract principle, without any mechanical contrivance, or mode of reducing it to practice, is a different matter, and is also a question of law, to which I shall immediately advert. But at present, what I wish to state to you is, that the manner of heating the air—the particular contrivance or shape of vessel, or of constructing the surface and shape so as to secure heat—is no part of the claim of invention contained in the specification. This direction in point of law, on a point which all must admit to be law for the court, you will see to be of great importance for you in considering the meaning of the patent. Indeed, I do not conceal from you, that while the intelligibility of the patent is for you ; yet when the previous question—what the patent claims—occurs in any case and is raised, and must be decided by the court—that question of law must very much guide you as to the intelligibility of the patent on the matters to which it does lay claim.

The questions of fact for the jury must be controlled by the construction of the patent.

The defenders say, it claims either one thing or another. It is my duty to tell you, what it does not claim. That direction, in point of law, does not leave it open to you to take any other view than one of the claims under the patent, *viz.* that the mode of heating air is no part of the claim patented, nor is intended to be set forth as any part of the patent invention. If that is so, then you will see that my direction, in point of law, gives you only one other sense, between which you can decide, and an interpretation which makes nonsense of the specification.

His invention, then, consists, according to the fair meaning of the specification, taken as a whole, and candidly considered, in passing the blast into an air vessel or receptacle, in order to be heated—in order at that stage of the process of application

In the House of Lords. of air to fires, to acquire the agent which he intends to act—heat in the blast, instead of a cold blast. The mode in which you are to heat, the form and shape, dimensions and numbers, of the vessels, he does not claim or intend to prescribe—he does not claim or intend to describe—he does not claim. If in that stage, by so intercepting the air and heating it, you pass the blast into the furnace, that is, he says, my improved application of air—that is the agent I mean to use, in order to produce heat in the furnace. How you heat, in what mode, or in what vessel, provided the vessel be strong enough to endure the blast, and of cubical contents of air sufficient for the blast, I neither care nor direct you; for if you so get the hot blast into the furnace, by heating the air in a vessel between the blowing engine and the fire, you attain my object; you will get my improved application of air.

The specification claims nothing in respect of the details of the mode described.

I am therefore of opinion, and must give you in point of law the direction, that the specification does not claim any thing as to the form, nature, shape, materials, numbers, or mathematical character, of the vessel or vessels in which the air is to be heated, or as to the mode of heating such vessels, provided the blast is heated between the blowing apparatus and the furnace, in an air vessel or receptacle, as to the size, dimensions, and numbers, of which you must suit yourself.

But within this objection, which is one of law, the defenders urge, that even if Neilson does not claim the air vessel as part of his invention, he has so described it as to make one particular sort of vessel a part of his apparatus, and has limited himself to one sort of air vessel, viz. one large vessel, to be increased in size according to the extent of blast, that is, of air to be heated. They say, that is the meaning of the specification—that practical men would so understand it; that this is so clearly the only vessel that Neilson contemplated, that his invention does not apply to any vessels in the shape of tubes, pipes, &c. In short, on this view of the specification they say, not very consistently with a great part of their case, that the specification contains really a very special, limited, and restricted description, by which the inventor so described one sort of apparatus, that he cannot claim any other, or maintain that his patent is one which applies to all varieties in the mode of heating air. This is a question for you; it is a question on the meaning and intelligibility of the specification—it is embraced under the issues, for you to answer. It is involved in the second and third issues. But I also propose to ask you to answer a special question on that point, which I shall afterwards state to you. If either party holds this to be a question for the court, I shall also state my own opinion, if required, so that the verdict, if according to the evidence, would stand, if it is a point for the jury; if for the court, the point would be fairly raised. But at the same time

that this view is pressed by the defenders, and much evidence adduced, to convince you that such is the only practical view which can be taken of the specification, there is another view taken, of a totally opposite description, which is a question of law for the court. The defenders say,—the specification seizes hold of an abstract principle, viz. that hot air produces more heat than cold, and of that abstract principle alone that the patentee purposely avoids any mode of stating how the principle should be applied; hence that the patent is bad, as being one for a principle alone.

The defenders, you will recollect, were very reluctant to state whether they actually raised that point or not. I think it is at the foundation of their whole case, and sure I am, that to enable you to discharge your duty, it is very necessary that I should not in any way avoid that question of law, or turn my remarks on it, which I easily could, into observations in point of fact, which the defenders could not except to; I think it will be more useful to you for me to explain the law to you fully on this point, and the defenders have thus the benefit of being able to except to any thing I say, and so obtain the judgment of the court on the point, in case I am wrong.

It is quite true that a patent cannot be taken out solely for an abstract philosophical principle—for instance, for any law of nature, or any property of matter, apart from any mode of turning it to account in the practical operations of manufacture, or the business, and arts, and utilities of life. The mere discovery of such a principle is not an invention, in the patent law sense of the term. Stating such a principle in a patent may be a promulgation of the principle, but it is no application of the principle to any practical purpose. And without that application of the principle to a practical object and end, and without the application of it to human industry, or to the purposes of human enjoyment, a person cannot in the abstract appropriate a principle to himself. But a patent will be good, though the subject of the patent consists in the discovery of a great, general, and most comprehensive principle in science or law of nature, if that principle is by the specification applied to any special purpose, so as thereby to effectuate a practical result and benefit not previously attained.

The main merit, the most important part of the invention, may consist in the conception of the original idea—in the discovery of the principle in science, or of the law of nature, stated in the patent, and little or no pains may have been taken in working out the best manner and mode of the application of the principle to the purpose set forth in the patent. But still, if the principle is stated to be applicable to any special purpose, so as to produce any result previously unknown, in the way and for the objects described, the patent is good. It is no longer

A.D. 1843.

The discovery of a principle not the subject of a patent, but when applied it becomes an invention which may be patented.

*In the House of
Lords.*

A principle reduced to practice is the subject of letters patent, however extensive may be the resulting claim.

an abstract principle. It comes to be a principle turned to account, to a practical object, and applied to a special result. It becomes, then, not an abstract principle, which means a principle considered apart from any special purpose or practical operation, but the discovery and statement of a principle for a special purpose, that is, a practical invention, a mode of carrying a principle into effect. That such is the law, if a well-known principle is applied for the first time to produce a practical result for a special purpose, has never been disputed. It would be very strange and unjust to refuse the same legal effect, when the inventor has the additional merit of discovering the principle as well as its application to a practical object. The instant that the principle, although discovered for the first time, is stated, in actual application to, and as the agent of, producing a certain specified effect, it is no longer an abstract principle, it is then clothed with the language of practical application, and receives the impress of tangible direction to the actual business of human life. Is it any objection then, in the next place, to such a patent that terms descriptive of the application to a certain specified result include every mode of applying the principle or agent so as to produce that specified result, although one mode may not be described more than another—although one mode may be infinitely better than another—although much greater benefit would result from the application of the principle by one method than by another—although one method may be much less expensive than another? Is it, I next inquire, an objection to the patent, that, in its application of a new principle to a certain specified result, it includes every variety of mode of applying the principle according to the general statement of the object and benefit to be attained? You will observe that the greater part of the defenders' case is truly directed to this objection. This is a question of law, and I must tell you distinctly, that this generality of claim, that is, for all modes of applying the principle to the purpose specified, according to or within a general statement of the object to be attained, and of the use to be made of the agent to be so applied, is no objection whatever to the patent. That the application or use of the agent for the purpose specified, may be carried out in a great variety of ways, only shows the beauty, and simplicity, and comprehensiveness of the invention. But the scientific and general utility of the proposed application of the principle, if directed to a specified purpose, is not an objection to its becoming the subject of a patent. That the proposed application may be very generally adopted in a great variety of ways, is the merit of the invention, not a legal objection to the patent.

The defenders say—you announce a principle, that hot air will produce heat in the furnace; you direct us to take the

blast without interrupting or rather without stopping it, to A.D. 1843. take the current in blast, to heat it after it leaves the blast, and to throw it hot into the furnace. But you tell us no more—you do not tell us how we are to heat it. You say—you may heat in any way, in any sort of form of vessel. You say—I leave you to do it how you best can. But my application of the discovered principle is, that if you heat the air, and heat it after it leaves the blowing engine (for it is plain you cannot do it before), you attain the result I state; that is the purpose to which I apply the principle. The benefit will be greater or less. I only say, benefit you will get, I have disclosed the principle; I so apply it to a specified purpose by a mechanical contrivance, viz. by getting the heat when in blast, after it leaves the furnace; but the mode and manner, and extent of heating, I leave to you, and the degree of benefit, on that very account, I do not state. The defenders say, the patent, on this account, is bad in law. I must tell you, that taking the patent to be of this general character, it is good in law. I state to you the law to be, that you may obtain a patent for a mode of carrying a principle into effect; and if you suggest and discover, not only the principle, but suggest and invent how it may be applied to a practical result by mechanical contrivance and apparatus, and show that you are aware that no particular sort or modification, or form of the apparatus, is essential, in order to obtain benefit from the principle, then you may take your patent for the mode of carrying it into effect, and are not under the necessity of describing and confining yourself to one form of apparatus. If that were necessary, you see, what would be the result? Why, that a patent could hardly ever be obtained for any mode of carrying a newly discovered principle into practical results, though the most valuable of all discoveries. For the best form and shape or modification of apparatus, cannot in matters of such vast range, and requiring observation on such a great scale, be attained at once; and so the thing would become known, and so the right lost, long before all the various kinds of apparatus could be tried. Hence you may generally claim the mode of carrying the principle into effect by mechanical contrivance, so that any sort of apparatus applied in the way stated will, more or less, produce the benefit, and you are not tied down to any form.

The best illustration I can give you, and I think it right to give you this illustration, is from a case as to the application of that familiar principle the lever to the construction of chairs, or what is called the self-adjusting lever (*g*). This case, which afterwards came under the consideration of the whole court, was

(*g*) Minter's patent, *ante* 126 & 134.

In the House of Lords. tried in the Court of Exchequer during the presidency of Lord Lyndhurst. The case was as to the patent reclining chair, the luxury of which some of you may have tried; it had a self-adjusting lever, so that a person sitting or reclining, and I need not tell you what variety of postures can be assumed by a person reclining in a chair—in whatever situation he placed his back, there was sufficient resistance offered through means of the lever, to preserve the equilibrium. Now any thing more general than that, I cannot conceive; it was the application of a well-known principle, but for the first time applied to a chair. He made no claim to any particular parts of the chair, nor did he prescribe any precise mode in which they should be made^(h); but what he claimed was a self-adjusting lever to be applied to the back of a chair, where the weight of the seat acts as a counterpoise to the back, in whatever posture the party might be sitting or reclining. Nothing could be more general. Well, a verdict passed for the patentee, with liberty to have it set aside; but Lord Lyndhurst and the rest of the court held, that this was not a claim to a principle, but to the construction of a chair on this principle, in whatever shape or form it may be constructed⁽ⁱ⁾. Just so as to the hot blast, only the principle is also new. The patentee says, “I find hot air will increase the heat in the furnace, that a blast of hot air is beneficial for that end.” Here is the way to attain it—“heat the air under blast, between the blowing apparatus and the furnace; if you do that, I care not how you may propose to do it—I neither propose to you, nor claim, any special mode of doing it; you may give the air more or less degrees of heat; but if you so heat it, you will get by that contrivance the benefit I have invented and disclosed, more or less, according to the degree of heat.” This is very simple, very general; but its simplicity is its beauty and its practical value—not an objection in law^(k).

Having now stated the general law to you, there are some further practical directions in point of law, which may very usefully aid you in considering the case, and the issues under which it is tried. The first practical direction I have to give you, is as to the meaning of the pursuer’s issue. “Whether in the course of the year 1840, and during the currency of the said letters patent, the defenders did, in or at their iron works at Househill, by themselves or others, wrongfully, and in contra-

(h) The specification was accompanied by drawings, showing various modes of constructing a chair on this principle, but the claim was in the general form above suggested. *Ante* 126.

(i) In *Minter v. Wells*, *ante* 134.

(k) The learned judge referred to the judgment of the Court of Exchequer as to the invention claimed, *ante* 371; and as to the meaning of the term ‘effect,’ *ante* 372, expressing his opinion

that the meaning of the term ‘effect’ was for the jury, but that (referring to *Astley v. Taylor*, Shaw’s Ap. C. 58.) if either of the parties wished it, he should state his opinion upon it. The learned judge was not asked for his opinion, and he left a special question to the jury upon it, and both parties appear to have treated it as a question for the jury. An exception directed to this point was disallowed.

vention of the privileges conferred by the said letters patent, A.D. 1843. use machinery or apparatus substantially the same with the machinery or apparatus described in the said specification, and to the effect set forth in the said letters patent and specification, to the loss, injury, and damage, of the pursuer." Now I have to observe to you, that the specification is to be read as addressed to artists, or persons of competent skill in the branch of manufactures or process to which it is applicable. Hence, known machinery need not be described when the use of them is to be made in carrying out the object of the patent (1). For instance, if in an apparatus for improving the making of gas, a patentee should not mention or allude to a condenser—never notice it; yet in practice, if that is a part of all apparatus required for the making of gas, it was held that every one must know that a condenser must be used. In short, you are speaking to people who know the subject, and must be understood to know those things which are only the incidents in the particular process to which your patent applies. Then, the object here being to throw air hot into a furnace, and, to do so, vessels are to be heated in order to heat air; you observe it is a specification addressing itself to persons who are to use hot air, and are to heat the air in order to get the hot blast; it refers to vessels intended to heat air—vessels in which air is to be heated. Now if the patent need not, in order to be valid, describe any mode of heating air, but may include every form, then the specification is correctly framed to effectuate its object, if legal; for it then consistently omits any description of any sort or form of vessel in which air is to be heated. It assumes, properly, that persons constructing apparatus for heating air are to know the best form and shape of vessels in which air is to be heated—just as persons employed in gas apparatus are held to know they must resort to a condenser in the course of the improved structure, though nothing is said of it. Now, then, if the object is to throw hot blast into the furnace, and to heat air, but not to describe vessels, then the specification properly assumes, that persons who are to construct heating apparatus know the ordinary rules and common conditions to be attended to in heating air. It leaves every body to do it in the way they choose. It does not profess to be a patent for any particular mode of heating air. It simply says, that the use in particular processes of the air heated for fires, forges and furnaces, where blowing apparatus is required, and at a particular stage of the process, will do benefit to the furnace, and that is all.

The specification is to be read as addressed to artists.

The second direction I have to give on the first issue is what you must have already seen—that the sense in which the

(1) The learned judge cited the case of *Crossley v. Beverley*, 3 C. & P. 513; as to which, see *ante* 110, note n.

*In the House of
Lords.*

The character of
the patent af-
fects the sense
in which the
issues are to be
understood.

issue is to be understood is much affected by the law, as to the character of the patent. If I hold, in point of law, that he does not claim any particular apparatus, then there is no standard of apparatus in the specification with which to compare the Househill apparatus, and I shall immediately show you the importance of this on the patent. If the patent is good in the general sense in which I have explained its legal import, and to which extent I hold it to be a good patent, then you will see that variances in the modes or kinds of apparatus are of no moment, provided that, in the processes referred to (the use of fires, forges, and furnaces), the object of the particular contrivance or apparatus is to heat the air under blast, at the same stage of the process, viz. between the blowing apparatus and the furnace, and to throw it so heated into the furnace. If the patentee has not tied himself down to any particular sort of apparatus or heating vessels; if the use of hot air, heated when under blast, is claimed, and legally claimed, in whatever sort of vessel the air is heated—then see the effect of this view of the patent on the pursuer's issues. By the direction I have given you, in point of law, I take on myself the responsibility of deciding the point you are to look to in considering this issue. The question of infringement comes to be this—does the party heat the air in the same stage of the process by mechanical contrivance, and to the effect set forth in the specification, of producing heat in the furnace? If so, then no variety or improvement in the apparatus is of any importance. On my view of the patent in point of law, and if you are satisfied in point of fact, that the description does not describe any particular apparatus, or, if that also is a point of law, then, in truth, the use of the hot blast—that is, the use of the air heated in blast, between the blowing machine and the furnace—is the use of the patent machinery, and is not substantially different, but to the effect set forth. The light, then, in which the issue is to be viewed, must be received from the court in a great measure. And on the view I take, and have stated on my own responsibility, I apprehend the question under the pursuer's issue is a very short, a very plain question, not requiring much evidence to solve, and on which, though you must form your opinion, it is truly to be formed in a great measure in reliance on the law stated to you by the court. The point was so stated and treated by Mr. Baron Parke in the English case (*m*).

I have only to add further, that on the view which I have stated of the patent, and if you are satisfied that no particular form of vessel is described and claimed by the specification, then there is no particular standard with which you are to compare the Househill apparatus, which the model No. 7 represents.

The question is not a comparison between No. 7 and any particular vessel, but an inquiry whether No. 7 is not a contrivance to heat the air under blast at the stage proposed, and for the purpose stated in the specification, and, thereby, substantially the patent apparatus. If that is in your opinion its character, then I state to you in law, that the infringement is proved; as there is no standard or form of apparatus on this view of the case, with which you are to compare the defenders' apparatus.

The next directions I have to give you, relate to the counter-issues. And first, as to the first counter-issue, "whether the invention as described in the said letters patent and specification is not the original invention of J. B. Neilson?" Mr. Rutherford here drew a distinction between the first inventor and the public use by others of the invention, and maintained that the attempt to prove prior use, is not comprehended under the first issue. The distinction in the abstract is sound, and certainly in ordinary cases this issue is not the one taken, or properly applicable to public use and exercise thereof, in the kingdom. But a short recollection of the way this issue was put, will satisfy my learned friends at the bar, that, in this case, I could not put that legal construction on it, for in this case I am of opinion that the inquiry cannot be excluded under this issue. I am quite aware that the issue is not, generally speaking, to be explained by any of the previous proceedings in the cause. But here I must remind the pursuers' counsel of the course taken as to the preparation of the issues. These issues first came before the court as framed by the issue clerks. There were two versions of the issues, which as to this one were quite the same, because, whether the invention was used in Great Britain previously or not, both were agreed that the originality of the invention was involved. I then suggested that the first part of the pursuers' issue, as proposed by the issue clerks, should be taken as the defenders' counter-issue. To this the Solicitor General consented at once, and the issue was altered in court without any one perceiving that the one I so proposed to be transposed was open to the criticism stated by Mr. Rutherford, viz. that it did not include prior public use, which the defenders' issue had distinctly included. Under this issue I could not hold that the defenders were excluded from proving the public use of the invention previous to the patent. I must hold that, according to the way those issues were framed, though I admit not the best, it was an oversight on the part of the court in suggesting to the defenders that this would try their case; I say as those issues were framed, I cannot, consistently with the course of procedure to which the court were parties, exclude the defenders from proving the public use. I know in general that you cannot explain the issues by reference to the previous procedure,

The issues as to the first inventor, and the prior use of the invention, distinct.

*In the House of
Lords.*

but in this instance, I feel that I would be running counter to the justice of the case, if I were to exclude that proof.

Certainly I would in the abstract agree with Mr. Rutherford, that an issue as to a person being the first inventor, is not an issue as to public use. Taking the offer of prior use to be competent to be made out in this case, if the defenders can prove it, I must now give you two directions in point of law on this issue. It is not sufficient to show that others, in experiments or incidental trials, had hit upon the same idea, not having made public the principle and the application of it to the same processes. Even if the principle had been a known principle, still if it is for the first time applied by mechanical contrivance and apparatus to certain processes, in which it had not been previously used as an agent, the patent would be good, and still more when the principle and the mode of carrying it into a practical, beneficial result are claimed. I have to repeat, that the originality of the invention is not destroyed by proof, that, in the history of the arts and trades of this country, some one or two or even more persons may have apparently had some glimpse of the same conception, in occasional and insulated experiments, which were not prosecuted, nor made known, and from which, so far as the rest of the world were concerned, no result or change followed on former practice.

Originality of
an invention
not destroyed
by glimpses
and insulated
experiments of
the same thing.

The second direction in point of law which I have to give you on this issue, respects what is prior use, so as to destroy the invention. Now this is well expressed in the words of the patent in this and other cases; this is what the defenders must prove—that it was not new, in respect of the public use and exercise thereof in this kingdom. These emphatic and plain words hardly require explanation; they convey the meaning to you in a way that it is impossible to mistake; the question in each case is a matter of fact for the jury; but this is, in point of law, the sort and kind of use, the existence of which a jury must find to be proved, in order to warrant them to find against the patentee. I may state to you, that great utility is one important element in the question of novelty. For if the process is of great, manifest, striking, and immediate utility, that is of the utmost importance to the point. Could this have been previously in public use and exercise without clear and abundant proof? The cases referred to at the bar have settled that the use must be public use; that the existence and trial of regular machines of the very same sort, if abandoned, if not used and introduced into practice, is not public use and exercise thereof in the kingdom. Again, in the case of the suspension principle for wheels, it was well stated by Mr. Justice Patteson, to the jury who tried that case—"If on the whole of this evidence, either on the one side or the other, it appeared that this

The utility of
the invention
an element in
ascertaining its
novelty.

wheel, constructed by Mr. Strutt's order in 1814, was a wheel A.D. 1843. on the same principles, and in substance the same wheel, as the other, for which the plaintiff has taken out his patent, and that it was used openly and in public, so that every body might see it, and had continued to use the same thing up to the time of taking out the patent; undoubtedly, then, that would be a ground to say, that the plaintiff's invention is not new, and if it is not new, of course his patent is bad, and he cannot recover in this action; but if, on the other hand, you are of opinion, that Mr. Strutt's is an experiment, and that he found it did not answer, and ceased to use it altogether, and abandoned it as useless, and nobody else followed it up, and that the plaintiff's invention, which came afterwards, was his own invention, and remedied the defect (if I may so say), although he knew nothing of Mr. Strutt's wheel, he remedied the defects of Mr. Strutt's wheel, then there is no reason for saying the plaintiff's patent is not good" (n). Again, I close what I have to say to you here, by the well-considered language of Chief Justice Tindal: "It will be for the jury to say, whether the invention was or was not in public use and operation at the time the patent was granted. There are certain limits to this question. A man may make experiments in his own closet: if he never communicates these experiments to the world, and lays them by; and another person has made the same experiments, and, being satisfied, takes a patent; it would be no answer to say that another person had made the same experiments; there may be several rivals starting at the same time; the first who comes and takes a patent, it not being generally known to the public; that man has a right to clothe himself with the authority of the patent, and enjoy the benefit of it; if the evidence, when properly considered, classes itself under the description of experiment only, that would be no answer. On the other hand, the use of an article might be so general as to be almost universal; then you can hardly suppose any body would take a patent. Between these two limits most cases will range themselves, and it must be for the jury to say, whether the evidence convinces their understanding, that the subject of the patent was in public use and operation at the time when the patent was granted" (o).

You will observe that it is settled that the trials founded on as a proof of prior use—1. Must have been public. 2. Must have been continued—not abandoned. 3. Must have continued to the time when the patent was granted; I don't say to the very exact period, but it must have been known and used as a useful thing at the time. The abandonment of trials as not successful or satisfactory, is a decided proof that the invention

(n) In *Jones v. Pearse*, ante 124.

(o) In *Cornish v. Keene*, ante 508.

*In the House of
Lords.*

was not turned to account for public utility, and was not in public use and operation. With these directions as to the law of this first of the counter-issues, you will probably be able easily to dispose of this part of the case on the evidence, keeping in view that the defenders must prove that issue (*p*).

The specification being for the benefit of the trade, must be sufficient for workmen competent to the ordinary business of that trade; first-rate engineers and common labourers are to be excluded.

I have now to call your attention to the next two issues which the defenders seek to establish: "Whether the description contained in the said specification is not such as to enable workmen of ordinary skill to make machinery or apparatus capable of producing the effect set forth in the said letters patent and specification; and whether machinery or apparatus constructed according to the description in the said letters patent and specification, is not practically useful for the purposes set forth in the said letters patent?" Now, gentlemen, observe it is the effect set forth in the letters patent; it is not to produce the same effect with No. 7, which I take as a short description generally (*q*). On these issues there are matters for me to state to you in point of law. Workmen of ordinary skill, means those competent in the ordinary business and conducting of the particular trade—to furnish and construct apparatus for the purpose required. Certainly, the pursuer does not satisfy the condition of law, if he says men of the greatest science—first-rate engineers—could understand him, and would know what to do, or what directions to give. That is not enough. The specification must be for the benefit of the trade when the patent is out; it is addressed to those engaged in particular departments of trade, and who are to be employed in order to make apparatus for the purpose, those who are competent to make similar apparatus for similar purposes. But the terms in the issue do not denote common labourers or workmen employed under those who do furnish and construct such apparatus. We know that in many trades the most skilful workmen, in the subdivision of labour, are conversant only with parts and portions of machines, and could not put together the whole. The workmen referred to by the law are those con-

(*p*) The above direction as to the legal requisites of the user, which will vitiate letters patent, was excepted to, and the exception allowed by the House of Lords, their lordships being of opinion, that the learned Chief Justice Clerk must be understood as speaking of the use of a complete and perfect invention, and not of that which could be strictly designated as trial or experiment only, by reason of its being an invention incomplete and not perfected. Their lordships were also of opinion, that abandonment was evidence only, and not proof, of the trial having been mere experiment. The following observations of the noble and learned lords during the argument are important.

Lord Brougham: If the learned judge had said the abandonment is an important question in con-

sidering whether it is an experiment or perfected invention, he would have done no more than was right. It was an element for the consideration of the jury.

Lord Campbell: In point of fact, when at the bar, I always considered when I was dealing with the merits of a case, that abandonment was almost decisive to show that it was not a real invention, though in point of law it must be immaterial. It seems to me, that it must rest either on experiment or invention. If it be experiment, the continuance down to the time of the patent is immaterial—it will not invalidate the patent; but if it be an invention, the invention itself will be good, and the abandonment will not affect it.

(*q*) This No. 7 was a model of the improved apparatus used by the defenders, ante 688.

versant with the construction, and principles, and rules, of A.D. 1843. apparatus for heating air, and with the object of the blowing apparatus, so that the heating of the air shall impede the blast as little as possible. The apparatus to attain the end is to heat vessels in order to heat the blast. Then you are to apply to persons who are conversant with the rules, purposes, and conditions to be observed, and usually acted upon in heating air, and who construct and furnish such apparatus. Another important direction I have to give you in point of law is this—when you are asked in the words of the second issue “capable of producing the effect set forth;” or of the third, “practically useful for the purpose set forth,” &c.; the point is not, whether in first acting on the specification, persons would have furnished either Mr. Condie’s pipes, or any contrivance at all so good, or giving so much benefit from the invention. You will see now the great importance of the general directions I formerly gave you as to the object of the patent, and the extent of the claim. The patentee does not profess to state any particular form of pipes for getting either a certain degree or the greatest degree of benefit from the hot blast, and this shows you the fallacy in a great part of the evidence for the defenders. The patentee says, “the hot blast will produce heat in the furnace. Heat the blast in any way, you will get benefit;” and then the question is, can apparatus be constructed, by those competent to construct the heating apparatus, so as to have some decided benefit, more or less. If that shall be proved, then we have no question under this issue, whether the greatest benefit would at first have been attained in acting on the specification. Here, I prefer putting this point to you in the words of my brother judge in England, who tried this case. Mr. Baron Parke, in commenting on the opinion of a scientific witness, examined as to whether workmen could, from the specification, construct an apparatus which would be most efficaciously used, says (*ante* 317), “That, however, I do not think is the exact point. The point is, whether it can be used beneficially taking it in the simplest form. If in order to use it beneficially at all, experiments were necessary, about which a good deal was said by the Attorney General, then the specification would be void. If it were necessary to use experiments in order to have the benefit of the invention, in which it is claimed by the specification, in that case it would be void; but if, in this case, it is only necessary to have recourse to experiments, in order to have the full benefit that the subject is capable of, it appears to me, that it would not void the patent; because, though it is a subject beneficial in its simplest form of application, it is a vast deal more useful when the improvement takes place; and in order to make the greatest improvement, unquestionably many experiments are necessary, and even, at this very moment, not-

Not necessary that the apparatus described should produce the greatest amount of benefit.

In the House of Lords. withstanding the great improvements that have taken place, there is no doubt that the matter is not in that state of improvement which, in all probability, it will be in the course of a few years. It does not appear to me, therefore, that what the Attorney General has dwelt upon, with reference to the evidence, all the evidence in the case, that that affects the patent. If experiments were necessary to produce any degree of benefit under the patent, then, in that case, I think the specification is void, for it does not give the requisite degree of temperature; but if the simplest form would be productive of benefit, it appears to me that the specification is good." And again (*ante* 320), Baron Parke says, "I have already told you, that if experiments are necessary in order to construct a machine to produce some beneficial effect, no doubt this specification is defective. If experiments are only necessary in order to produce the greatest beneficial effect, in that case I think the patent is not void." Then again (*ante* 322), Baron Parke says, "However, I think one may very well collect from the evidence as to Mr. Neilson's own acts, that he really was not fully aware either of the great value of his patent, and still more, was not fully aware of the beneficial mode of carrying it into effect. That was discovered by persons more acquainted than he himself was with the science of heating air. Still, however, I think, if you are of opinion that the specification does disclose such an apparatus as to enable an ordinary workman, acquainted with the subject of making blowing apparatus, and fitting up apparatus for forges" (I put it rather differently—I should say, workmen acquainted with the construction of apparatus for heating air, and so I observe Baron Parke ultimately (*ante* 327) put it), "to construct an apparatus of some value, so as to make it worth while;" it seems to me, that so far as this objection goes, the specification would not be insufficient. I take these passages, the more because that learned judge adopted a view of the specification, in which the court held he was wrong, and had throughout a decided impression at the trial, that the specification was defective, thinking that it told those who were to work on it to disregard the rules as to heating air. But even with that view you see how he puts this point. I have only to add, that I think he states this not so favourably as I can now do, and feel bound to do, guided by the judgment of the English Court of Exchequer and of Lord Lyndhurst. I have to tell you, in point of law, that under this patent, not claiming any or the best contrivance for heating the air, and at the least expense and trouble, the result which actually followed, viz. that persons in the trade, and in acting on the patent, contrived, from time to time, a great variety of contrivances, more or less valuable or costly, and at last came to settle generally into one form as better than others, was exactly the result which might be ex-

It is sufficient if persons acquainted with heating air would construct an apparatus productive of some benefit.

pected to follow under a patent of this general character; and A.D. 1843. that, if the patent is good in law, then it gave no form of apparatus for heating air, but claimed the contrivance generally, of heating the blast for the effect and end of producing heat in the furnace. The only point for you is—will any contrivance which heats the blast produce that beneficial effect and end? if so, then the defenders have failed to prove these two issues. I shall explain to you that, on this point, I think the defenders have, in the evidence of some of their own witnesses, given you the most decided and valuable evidence in the whole cause, in support of the pursuer's answer to these two issues.

But then the defenders contend, that there are directions in the specification as to heating vessels, and as to the form of the vessels, and that these directions are at variance with all the rules as to heating air, and would mislead all persons conversant with heating apparatus, by directing them to act against all the known rules for heating air, in order to make the blast hot, and in order to attain the end of this patent on the furnace. I am under considerable doubt whether others may view this as matter of law. In case it should be so considered elsewhere, I will, if either party require it, state my opinion in point of law, so that they may not be cut out of the opportunity of making it matter of record. But individually I hold, under these issues settled to try this cause, that this is a question wholly for you, the jury, keeping in view the principles for construing the specification which I have stated to you, and proceeding as you will upon the view I have stated of the patent, in point of law, as a general patent for the application of hot blast to fires, forges, and furnaces, the air under blast being heated at a particular stage of the process, and not being a patent for any particular mode of heating air, so that directions to workmen on that subject are not to be presumed. Then another point is raised by the defenders, viz. that the heat of the blast, obtained even by the original forms of the apparatus, and before Condie's pipes were introduced, was such as to burn the old dry twires; that even the old water twires used at the great heat of refineries would not stand the heat obtained by the hot blast even before the pipes represented by 5 and 7 were introduced; that the patentee did not tell how the mouth of the aperture into the furnace, at which the hot blast was introduced, was to be guarded; and that on this account either the specification is defective in point of law, or does not enable benefit to be derived from the hot blast by Neilson's invention alone. I am not sure exactly which view the defenders stand on, whether it is defective in law because it does not guard the furnace from the effect of the hot blast, or whether objectionable in fact, because it is shown, as they allege, that without that invention the benefit would not be derived at all. On the evidence you

As to the alleged misdirection in the specification.

*In the House of
Lords.*

The patentee
not bound to
give any direc-
tions as to the
water twires.

will consider, whether there can be, in point of fact, any circumstance of real evidence more conclusive as to the great heat obtained in practice with all the older contrivances, than that not only the dry, but even the old water twire would not stand—and whether the continuance of the use of the hot blast, notwithstanding these interruptions, is not decided real evidence also of the practical advantages to the trade. But on this point I must state to you, in point of law, that for the object and purpose of the patent, the specification is not defective so far as it does not state how, or in what manner, the mouth of the furnace was to be guarded, and that the patentee was not bound to do so. But I cannot say that this objection, in point of fact, is to be excluded from your consideration under the second and third issues, attending, however, to the rules I have given you in construing the specification, and also to the general nature of the patent, as I have stated it. The alleged difficulty of acting on and using the hot blast before the new water twire was invented, may be used as evidence to show that the invention was of no practical utility until a new water twire was invented, for it is said by the defenders, that even the old water twire was of no use, although in many of the English works Condie's twire is not yet used. But as a legal objection to his patent, I apprehend that it cannot be maintained, in point of law, that the patentee was bound to state how the sides of the furnace, where the hot blast was to enter, should be protected.

Now this brings to a close the directions which I have to give you in point of law. They have been certainly fuller, and perhaps more anxious, than necessary. But knowing that one of the parties thought that the benefit of trying the point of law was lost to them in England, I have thought it my duty to state the case most fully, so that every point may be before the parties as far as it occurred; and I have also thought it my duty not to withhold any points of law so far as their tendency and meaning might bear directly on the light in which you are to consider the evidence. You must, with your intelligence, perceive that the decision of the questions in the cause depends very little on the details of the evidence, but mainly on the general views you must take of the case in point of law, or on the general views you have as to the meaning of the specification. But still the details of the evidence must be anxiously attended to, in order to secure certain and safe judgment.

If your opinion on the whole cause shall be for the defenders, it will be sufficient that you find generally for the defenders. If your opinion shall be for the pursuer, then I have mentioned that, for various reasons, I shall ask you to answer certain additional questions, and I am persuaded that, by doing so, I shall save great uncertainty and embarrassment, especially as in England some points were held to be law for the court,

which I humbly think are points for you, and, at all events, are A. D. 1843. made by these issues points for the jury trying the same. The questions are—

1. Whether, by the description in the said specification, the patentee did, or did not, refer to any particular form, or shape, or mode of construction, of the air vessel or vessels, or receptacle or receptacles, in which the air under blast is to be heated? 2. Whether, by the use of the term "effect" in the specification, the patentee did, or did not, state that the form and shape of the air vessel or vessels were immaterial for the purpose of heating the air in such air vessel or vessels? 3. Whether the terms of the specification respecting the air vessels or receptacles, and the size and numbers thereof, are, or are not, such as to mislead persons acquainted with the process of heating air, so as to direct and cause them to construct the vessels in a form or manner contrary to the ordinary and necessary rules to be attended to in heating air passed into vessels, for the purpose of being heated under the progress of the blast (r)?

To the above direction in law of the Lord Justice Clerk the counsel for the defenders excepted as follows:—

(2.) In so far as he did direct the jury, that the patentee did not claim as any part of this invention, or profess to describe, any mode of heating the air under blast in a vessel; or any

(r) The learned judge then recapitulated the evidence, and gave the following directions as to the damages.

The damages.—The only other point that arises on the supposition of your finding for the pursuer, is the question of damages. Damages are claimed of two kinds. You are aware that the amount of the damage arises in regard to, and is of course involved in the consideration of this first issue. The amount of damage you may give according to the circumstances proved. I must own that I think the damages should have been much more satisfactorily proved, if it was to be proved in pounds, shillings, and pence, in regard to this colliery. But still there is no contradictory evidence. The saving spoken of, viz. £2 2s. per ton, is not contradicted. The answer that was put was this—be it that the manufacture was conducted at that rate of saving, still I have not made profit on this whole concern. That is no answer in point of law; and no evidence was tendered to show that the saving was overrated. Whether that saving comes to £3400, as calculated, it is for you to say. I am bound to tell you in point of law, that the pursuer is entitled to claim the benefit arising out of the saving made by his apparatus. But it is said, it does not follow that he is entitled to obtain in law the whole of that saving, because the defenders tell you the variety of circumstances under which these works were carried on. It is impossible to take it as a legal estimate, from which you are not to depart in deliberating on the claim, assuming that you

find for the pursuer. I think you are entitled to weigh the whole matter in your minds.

Then there is another branch of damage, viz. compensation for the invasion of the patent. Now, the invasion of a patent is just as much an invasion of a man's rights as if you were to make an inroad upon a man's house, or as if you were to trespass on his property. It is an injury done to him, and therefore he is entitled to compensation.

The jury found as follows: "That in respect of the matters proven before them, they find for the pursuer on all the issues; and further find, that by the description in the said specification, the patentee did not refer to any particular form, or shape, or mode of constructing the air vessel or vessels, or receptacle or receptacles, in which the air under blast is to be heated; and further find, that by the use of the term 'effect' in the specification, the patentee did not state that the form and shape of the air vessel or vessels were immaterial for the purpose of heating the air in such vessel or vessels; and further find, that the terms of the specification respecting the air vessels or receptacles, and the size and number thereof, are not such as to mislead persons acquainted with the process of heating air, so as to direct and cause them to construct the vessels in a form or manner contrary to the ordinary and necessary rules to be attended to in heating air passed into vessels for the purpose of being heated under the progress of the blast; and they assess the damages at £3000."

*In the House of
Lords.*

particular form or dimensions of the vessel or vessels to be employed for that purpose. (3.) In so far as, upon such view of the extent and nature of the patentee's claim, he did direct the jury, in point of law, that the said patent was valid, and did not direct the jury, in point of law, that the patent was invalid. (4.) In so far as he did not direct the jury, in point of law, that the specification, by not giving a particular description of the nature of the said invention, and in what manner the same was to be performed, was insufficient, and did not comply with the condition on which the patent was granted. (5.) In so far as he directed the jury, that it was a question on the intelligibility of the patent, and for them, whether the specification contains a special, limited, and restricted description, by which the inventor so described one sort of apparatus, that he cannot maintain that his patent is one which applies to all varieties in the apparatus which may be employed in the heating of air while under blast, and did leave that question on the evidence to the jury; and did not direct that the meaning of the specification, on a matter not involving words of art, is matter of law for direction by the court. (6.) In so far as he did not direct the jury, that on the construction of the patent and specification, the patentee cannot claim or maintain that his patent is one which applies to all varieties in the apparatus which may be employed in heating air while under blast, but was limited to a particular apparatus described in the specification. (7.) In so far as he directed the jury, that the sense of the term "effect" in working on this specification, was a question upon the evidence for them, and not matter of law for direction by the court. (8.) In so far as he did not direct the jury, that the term "effect," as employed in the specification, meant heating the air while under blast, and increase of heat in the furnace. (9.) In so far as he directed the jury, that if they were of opinion that the patentee had not limited himself in his specification to any particular description of vessel or apparatus, variances in the modes or kinds of apparatus are of no moment, provided that, in the processes referred to (the use of fires, forges, and furnaces), the object of the particular contrivance or apparatus is to heat the air under blast at the same stage of the process, viz. between the blowing apparatus and the furnace, and to throw it so heated into the furnace, to the effect of this improved application of air for that purpose. (10.) In so far as the said Lord Justice Clerk directed the jury, in point of law, that it was no objection to the validity of such a patent, that it included every mode of applying the principle or agent so as to produce the specified result, although one mode may not be described more than another—although one mode may be infinitely better than another—although much greater benefit would result from the application of the

principle by one method than by another—although one method may be much less expensive than another; and that this generality of claim, that is, for all modes of applying the principle to the purpose specified, according to or within a general statement of the object to be obtained, and of the use to be made of the agent to be so applied, was no objection whatever to the patent. (11.) In so far as the Lord Justice Clerk directed the jury, in point of law, that the proof of prior use of the patent invention must not only be—1. Public, but—2. Must have been continued, not abandoned; and—3. Must have continued to the time when the patent was granted, not to the very exact period, but that it must have been known and used as a useful thing at the time. (12.) In so far as the Lord Justice Clerk directed the jury, in point of law, that for the object and purpose of the patent the specification is not defective, so far as it does not state how, or in what manner, the mouth of the furnace was to be guarded, and that the patentee was not bound to do so. (13.) In so far as the said Lord Justice Clerk did not direct the jury, in point of law, that for the object and purpose of the patent the specification was defective, in so far as it did not state how, or in what manner, the end of the pipe conducting the heated air into the furnace was to be protected against the effects of the intensity of the heat, and that the patentee was bound to do so (s).

The Attorney General (Sir F. Pollock), the Lord Advocate (D. McNeill), and Kelly, for the appellants. As to the first exception (t). Under the issues and averment on the record of user, it was competent to the defenders to have gone into the whole question of the originality of the invention. The defenders proposed to show the prior use of hot air at Irvine and other places. Prior use intimates prior knowledge, and shows prior invention. The relevancy of the rejected evidence cannot be disputed. [Rutherford: The evidence was rejected on the ground of there not being sufficient notice.] [Lord Campbell: The question was whether, according to the mode of proceeding in Scotland, taken in conjunction with Lord Brougham's act, it was competent to give evidence of that particular case on that particular occasion. The relevancy, of course, was assumed in taking the objection.] [Lord Brougham: You contend that place and time ought to have been given, that you might be prepared to meet it.] An issue having been granted to try the

(s) The exceptions tendered in this case were argued before the judge of the Second Division of the Court of Session, and overruled. The substance of these judgments, with reference to the first exception, and the decision that Lord

Brougham's act did not apply to the system of pleading in Scotland, has been already given, ante 552. The judgments are printed at length in the appendix to the case.

(t) See the exception, ante 676.

*In the House of
Lords.*

question of prior use, the statement that the invention had been used in Scotland and England was quite sufficient; it was competent for the other party to have objected to the issue, or to have required more specification. [Lord Campbell: Some places are specified (*t*).] Some places in England; and the allegation is, that the invention was known and practised both in England and Scotland; an objection cannot be taken to the sufficiency of the statement after an issue has been granted (*u*). The question is, what degree of particularity is required to satisfy the enactments of the Judicature Act and the Act of Sederunt; a particular of person, time, and place, has never been required (*x*). The evidence in this case was not rejected on the ground of the insufficiency of the general averment, but because that the general averment being followed out by specific instances, the party was misled into the belief that only those specific instances were to be adduced in evidence. The learned judge at the trial said the general statement by itself would have been sufficient, and the judges of the Second Division of the Court of Session adopted this opinion. If the general statement were sufficient of itself, the particular instances in England cannot limit it at all events with regard to Scotland. The question therefore is simply, whether the party was taken unawares by the attempt to prove some use in Scotland; the record gives notice of some use in Scotland. No more particularity is required in cases of patents than in other cases, unless the statute 5 & 6 W. 4, c. 83, applies (*y*).

As to the 11th exception—The learned judge divided the question of user into three classes; it must be public—continued, and not abandoned—continued to the time of the patent being granted, not to the exact time, but known and used as a useful thing at the time (*z*). What is meant by the exact time? What period of cessation would be sufficient to give a fresh right? [Lord Lyndhurst, L. C.: I have always understood the rule in England to be this, that if a man invents a thing and uses it, and it is publicly communicated, if he discontinues the use of it, still that prevents another person from taking out a patent.] According to the above direction, however public the use, and however long continued, if it be not continued down to the time of the patent, such prior use will not invalidate a subsequent patent for the same invention. The learned judge by

(*t*) See the statement, *ante* 675.

(*u*) See the decision of the Court of Exchequer, *ante* 370, in the analogous case of the notice of objections under the statute.

(*x*) See the enactments cited, *ante* 674-5. The following cases were referred to: *Wilson v. Beveridge*, 10 S. & D. 110; *Rutherford v. Carruthers*, 1 S. & D. 1109, N. S.; *Dabriel v. Exors. of Queensbury*, 4 Murray, 14; *McDonald v. Mackie*

and Company, 5 W. & Sh. Ap. C. 465; *Gibson v. Mackinglay*, 5 W. & Sh. Ap. C. 472, as showing the kind of averments in other cases. Also the case of *Russell v. Crichton*, 16 Sh. & D. 1157; as to which, see *per* Lord Moncrieff, *ante* 582.

(*y*) See the section, *ante* 260, *n. c.* Their lordships intimated an opinion, that this section did not apply to the Scotch proceedings.

(*z*) See *ante* 691.

this direction entirely withdrew from the jury the consideration A.D. 1843. how far the facts proved went to show that Mr. Neilson was not the original inventor.

As to the 2nd, 3rd, and 4th exceptions—The title gives no idea in what the improved application consists, whether in a particular treatment of the air to make it more suitable, or in the introduction of the air at any particular place, or under any particular circumstances. It might be either in heating or in cooling the air, or in rendering it more dry or more damp, or introducing it more rapidly or more slowly, or by diverse currents. The specification declares the invention to consist, in applying air to furnaces in the manner described. The specification tells you to go through a certain process, and a beneficial result will follow. That is a description of a mode of heating air in order that it may be delivered hot into the furnace. The specification does not say,—hot air delivered into the furnace is better than cold air—heat the air as you please, and deliver it hot, and you will have benefit; but it says, do these things which I have described. The learned judge says, that the patentee does not claim the mode or manner of heating; that this is no part of his claim (a). The specification declares the mode in which you are to heat the air: the form, shape, dimensions and numbers of the vessels are not claimed or intended to be prescribed (b). The learned judge withdrew from the jury any question of substantial agreement between the alleged infringement and the process of the patentee, by laying it down as matter of law, that the invention was merely for heating air *in transitu* between the bellows and the furnace; and if therefore, in any way whatever, the defenders have done this, they have infringed the patent; this direction excluded comparison between the machinery employed in the two cases; and then, if it be said that the patent is merely for applying hot air instead of cold—that hot air is better than cold, the patent is simply for a principle, and cannot be maintained. [Lord Campbell: What issue have you on this record to raise the question of the patent being for a principle?] Under the first issue. [Lord Campbell: That clearly admits that there is a valid patent.] If the patent is, as has been suggested, for a certain machine, namely, a vessel for heating the air between the blowing apparatus and the furnace, then the direction pointed out in the 2nd exception was wrong. [Lord Campbell: You might have pleaded that it was a patent for a principle, and not for any particular mode of applying a principle. There was no issue for the direction of the judge upon

The issue as to the infringement admits the validity of the patent.

(a) *Ante* 681.

(b) *Ante* 682.

In the House of that point.] The learned judge treated the patent as if it were
Loras. for a principle, and because it was a patent for a principle, he decided that every possible way of doing the thing must be treated as matter of law, not of fact, with reference to the infringement of the patent. The withdrawing that from the jury was a misdirection in point of law.

Argument for The Solicitor General (Sir W. W. Follett), and *Rutherford*, for
the respondents. the respondents. The question in this case on the first exception is of great importance as a matter of Scotch pleading. Upon an issue framed as the present, it was not competent on the part of the defenders to offer distinct facts and circumstances relating to the prior use of that invention, unless they had averred them upon the record; the defenders having averred certain facts and circumstances are not at liberty to give evidence of other facts and circumstances. By the statute, the parties are to give in the one the condescendence, the other the answer; setting out without argument the facts which they aver and offer to prove in support of the summons and defences. According to the course of practice in Scotland the record is to be looked at, and the party is not to be allowed to travel out of the record or to go into other facts and statements. The judges of the Court of Session, well acquainted with the practice of the law in Scotland, have decided unanimously, that according to that practice it is necessary in such a case as the present that the prior use at particular places, and by particular persons, should be so stated, that the pursuer may be able to meet distinctly the particular use in which his invention is said to be traced. There was not a sufficient statement on this record to prevent surprise. If the general statement of user in England and Scotland be sufficient, why are any specific places added? If a party will not comply with the plain and well-understood course of practice, he can make no pretence of having sustained hardship. It has been said, that under an issue of prior use, a party would be at liberty to prove prior use any where, without any special averment as to time and place. This doctrine cannot be maintained, and was never raised in the court below; but that is not the issue. When particular proof is offered of the use in any particular place, or under any particular circumstances, the record is to be looked at, to see whether the party has given such notice as the practice of pleading in the Scotch court requires. The record is in the hands of the court for that purpose, and is to be looked to as a specification of what is intended to be proved on either side, of the grounds and circumstances intended to be offered in support of the case. Under the general averment of prior use, any thing that falls within that issue may be proved; but when the record is looked to, that general issue is limited by the special averments there

stated. It could not be incumbent on the pursuers to watch A.D. 1843. the pleadings of their opponents, and to give them notice that they were not sufficiently specific. The defenders would have given no instances if they had not felt that the act of parliament required it; and then to these particular instances they add general words. The statute does not require the names of the witnesses or the evidence to be given, but the facts and circumstances intended to be proved must be averred. What are the facts and circumstances averred when you allege prior use in England and Scotland? If you must go further and state particular circumstances of prior use, if you do not mean to stand by those and those only, you are misleading the party, because you are drawing his attention to these particular averments in the case he is to meet, and you are leaving in a general averment, as to which you have given no notice and no intimation. You are misleading a party by pretending to give special information of a case which it is not your intention to make out. In all the instances given the pursuers were enabled to meet the evidence of the defenders, and the only point objected in the course of that investigation was this, that they were not allowed under the general averment containing the words 'among others,' to go into proof of the case at Irvine. Their lordships of the Second Division having expressed their opinion that Lord Brougham's act did not apply, and that the closed record, and the averments upon which the parties agreed to close, and of course to foreclose themselves as to all other averments of fact, place their judgment upon the fact, that the pursuer would have been misled by the record, since he could never have expected any proof against the invention from the examination of a smith at Irvine. The record led him to expect the proof of a different state of facts. No assistance can be derived from the cases upon Lord Brougham's act; the words of the Judicature Act are explicit; it is not enough to state the ground of defence, which here is prior use, but there must be facts and circumstances stated, by which that ground of defence, or the cause of action, is to be maintained. The learned judge did not state at the trial that the general averment of prior use would have been sufficient—he states on this point as follows: "The beauty of the Scotch system is, that without disclosing what is properly called evidence, you must at least state the line of defence, and the main facts and points in the inquiry on which you rest, so that the other party shall be fully able previously to investigate the case and be prepared for it. I am now asked to relax that system, and without a reason, for this is clear, that the facts to which this man from Irvine is to speak, might with perfect ease have been stated on record as much as the alleged use of hot blast at Bradley." The unanimous judgment of the Second Division of the Court

*In the House of
Lords.*

of Session is fully supported by all the cases (c), and it must be taken to be conclusively settled, that you must look to the condescendence, and you will not find sufficient notice as to prior use, which will entitle the party to found upon it.

As to the 11th exception—The learned Chief Justice Clerk is not speaking of a prior use in the ordinary sense of the term, that is, of an article openly made, sold, and applied, but he is speaking of experiments which failed and were abandoned prior to the date of the patent. The witnesses proved that at the works at Bradley certain experiments were made, and an apparatus constructed, which, looking generally at the character of the apparatus, might be characterized as one extremely similar to the one for which Mr. Neilson's patent is granted. Some time before 1808 (the date of the death of the proprietor, Mr. Wilkinson), according to the statement of four witnesses, between the blowing apparatus and the furnace was placed an old blowing cylinder; into this cylinder the air was passed between the blowing apparatus and the furnace, and the cylinder into which the air was thus thrown was exposed to heat. That experiment was made before 1808; it continued a short time, and was given up as wholly useless, though some of the witnesses say it produced a certain result in the smelting of iron. Here, then, was an experiment at the Bradley Works about forty years ago, continued for not more than three months, when it failed and was abandoned; the witnesses say that they never heated air afterwards, that they were satisfied it would not do; the pipes and furnace stood up for two or three years, and cold blast

Experiment can
have no effect.
The test is, was
the invention
perfected?

was worked through it. [Lord *Brougham*: What does the learned judge mean by saying, "If the experiment continued down to the time, or about the time," if it is a mere experiment? If it rests in experiment, is it less an experiment, provided it is never completed and matured into an invention, though it is continued down to the very date of the patent?] [Lord *Campbell*: The test would be, was it perfected or not perfected? Was it an invention or no invention?] The statement of the learned judge to the jury is not as stated in the 11th exception; he told the jury, almost in the very words of Mr. Justice Patteson and Lord Chief Justice Tindal, that if a party is relying on experiments, and experiments abandoned, and that if those experiments are abandoned prior to the patent, they are no answer to the patent; the evidence applied only to experiment, and to that alone the observations of the learned judge are addressed. The machine which is to vitiate a subsequent patent must be made public, and given to the public; and

(c) The cases of *Wilson v. Beveridge*, 10 Sh. & D. 110; *Rutherford v. Carruthers*, 1 Sh. & D. 1109, N.S., were referred to and distinguished

from the present; and the case, *Gye v. Hellen*, 10 Sh. & D. 710, was relied on as conclusive of the question on the 1st exception.

the learned judge said, that the existence of a machine, if not made public, is no answer. That was precisely the doctrine laid down in *Morgan v. Seaward* (d). [Lord Campbell: That case was well decided; one of the machines made at the manufactory in London had been sent to the Mediterranean.] The learned Chief Justice Clerk did not direct the jury in the manner stated in the 11th exception; that exception misstates the charge. The whole charge must be looked to for the purpose of ascertaining the general effect of the direction. There is no allegation of prior use except as to the novelty of the invention. There was no suggestion that Neilson had borrowed it from the Bradley Works, or that he had ever heard of the experiment. The whole prejudice of the iron masters was against it, so much so, that in some cases they had adopted means to cool the air, founded on the observation that the furnaces worked best in the depth of winter. The question of prior use does not arise on this record; at all events it can only arise in two ways—either under the words of the statute, which says, that letters patent shall only be granted for that which others at the time of making such letters patent shall not use; or as destroying the character of inventor, if it be shown that the invention has been used at a prior time. The question of prior use is not raised on the record, and the charge cannot be found fault with in respect of this, for there was no suggestion of any use at the time the patent was granted (e). [Lord Campbell: This being a court of appeal, we can only look at the record, and we must see whether there has been a misdirection upon some issue he was trying, and that upon some question put to the jury, they have, or may have, improperly answered by reason of the misdirection. The issue is, whether the invention is not the original invention of the pursuer, and it is only to that issue that the misdirection, supposing it to be one, can apply.] If the whole charge be looked to, it is perfectly clear that the learned judge was speaking exclusively of the proceedings at Bradley, and of the experiments and trials there. That cannot be said in any sense to have been a completed operation, or to have been treated by the party as a perfected and completed discovery. The proof amounts to an experiment, and to nothing but an experiment and trial that had not been successful, and was abandoned soon after it was instituted, and not kept on foot to the time. [Lord Brougham: I do not see how any experiment ever can vitiate a patent to whatever time it is continued. Let the experiments go on to the end of his life, the patent goes on at the same time.] That

(d) *Ante* 194. The following cases were cited on the part of the respondents with reference to the question of the user, which would vitiate subsequent letters patent: *Jones v. Pearse*, *ante* 124; *Lewis v. Marling*, *ante* 496; *Cornish v. Keene*,

ante 508 & 519; *Galloway v. Bleaden*, *ante* 525; and *Carpenter v. Smith*, *ante* 542.

(e) See the observations of the Lord Justice Clerk in the summing up, *ante* 689.

*In the House of
Lords.*

which was done at the Bradley Works was an experiment so far as Mr. Wilkinson was concerned; he had not attained any successful result. The law of the learned judge, if it influenced the jury at all, must have influenced them against the pursuers, and in favour of the defenders, because it amounts to a direction, that the patent is not good if experiments at the time of granting the letters patent shall have been in progress, producing a similar result, or in which an apparatus was used of the character described in the patent; that may be bad law, but no party can take advantage of it by a bill of exception, unless the direction be against his adversary and in favour of himself. The direction given must be taken to have reference to what took place at Bradley; that is the only user relied on to invalidate the title of the patentee. Suppose the learned judge to have said, I think the patent is bad if that experiment was continued down to the date of obtaining the letters patent: an objection might have been taken to that on the part of the pursuers, but the defenders cannot object that it was something to influence the jury against them. It is clearly settled, that if a judge state that which is not law, that would be no ground for exception, so as to set aside the trial, unless it might mislead the jury upon the issue joined on the record. [Lord *Lyndhurst*, L.C.: If the learned judge was speaking of experiment, it is quite clear that the defenders cannot be prejudiced by what he says of these experiments being continued down to the time of the patent. Suppose the cylinder spoken of at Bradley to be used now, would it not be heating air in a separate vessel, and, according to the judgment of the Court of Exchequer, an infringement of the patent; and if an infringement, is it not prior use?] The question is, whether by a use at Bradley of a few weeks, confined to those works, it loses the character of an experiment, and becomes a public use of a perfected invention? There is no announcement or publication to the world of the discovery; it begins and ends in experiment, and is abandoned as useless. The only ground of public use is, that there were many work-people employed; but witnesses well acquainted with Mr. Wilkinson prove that they never heard it mentioned, and the whole iron trade were so ignorant of it, that instead of heating, they took precautions for cooling the air.

The reply.

The Lord Advocate in reply. In arguing the first exception it may be assumed, that evidence of the use of the very same invention was rejected, on the ground that the fact so tendered had not been sufficiently stated on the record. The issue, whether Mr. Neilson was the original inventor, taken by itself, admits of every latitude, but the party is said to be precluded by the record. A party may be narrowed in his proof in two ways; the issue itself may be a limited one, or the issue being

general, he may not be able to go into every matter under that A.D. 1843. issue if in the condescendence or answer he has not stated the matter at all; but here it is distinctly stated that the invention was used at other places as well as those named; there is nothing, therefore, to limit the party from going into these. It has not been stated on the part of the respondents what degree of particularity as to names and places is required. In the case of *Gye v. Hallam*, which has been relied on, evidence was taken of which there was no specific notice upon the record; a new trial was applied for on the ground of surprise; there was no exception to the admissibility of the evidence. The notice under Lord Brougham's act was given, not because the defenders thought the record insufficient, but because it was thought that the statute might be held to apply to Scotland, and that such notice was incumbent on the pursuers. It was incumbent upon the pursuers to have objected to the generality of the averment, and to have had it made more specific; otherwise, the defenders are entitled to any advantage to be derived from the broadest construction which can be given to it. This principle was recognised and adopted by the Court of Exchequer in the case of *Neilson v. Harford* (f).

As to the 11th exception—The learned judge assumes the question of prior use to be competent to be made out, and then proceeds to give two directions in point of law respecting it (g). He refers to the words of the letters patent and not to the statute, and speaks of the sort or kind of use (not the use by way of experiment) the existence of which a jury must find in order to warrant them to find against the patentee. The learned judge speaks of the trials of a regular machine, and it is said, that means experiments only; but he meant those operations, whatever they are, which were founded on as a proof of prior use. The learned judge was understood to have said, that supposing there to have been a perfected invention, publicly used and known, and abandoned before the patent was granted, the patentee under those circumstances might be considered as the inventor, provided he did not steal it from the prior inventor; and the argument was maintained, that there was no evidence to connect Mr. Neilson with the operations at Bradley. [Lord Campbell: In that case, what would be the use of one of the sections of the statute referred to as Lord Brougham's act?] The question is, how the jury did understand the charge of the learned judge, and it is impossible that they can have understood it in the way now suggested; the judges of the Second Division did not so understand it. The learned judge ought to have left it to the jury to say, whether what was done at

(f) *Ante* 370.(g) *Ante* 690.

In the House of Lords. Bradley was experiment or not; but passing by that, he gives certain directions as expressing the settled law which could not fail to mislead the jury in the conclusion to which they were to come. The words of the charge of the learned judge, "known and used as a useful thing at the time," are altogether objectionable, because, if not known and used at the time, but twenty years ago, the patent would not be valid, and the cases adverted to by the learned judge give no countenance to such a doctrine.

Judgment.

Lord Chancellor LYNDHURST. My Lords: The principal question in this case arises out of the 11th exception. The learned judge stated to the jury what he considered to be sufficient evidence to support prior use so as to invalidate the patent. The learned judge expressed himself in these terms, "You will observe that it is settled that the trials founded on as a proof of prior use must have been public—must have been continued, not abandoned—must have continued to the time when the patent was granted; I do not say to the very exact period, but it must have been known and used as a useful thing at the time." Now the first question that arises upon this charge is, what the learned judge meant by the word "trials." The word "trials," as I understand it, does not in that passage import experiments going on for the purpose of concluding or perfecting the invention. But I understand the word "trials" to have been used in a different sense. It could not have been used in the former sense for this reason, that the distinction which the learned judge draws, and draws with so much pains and so much care, could not have applied to that meaning of the term "trials," because if they were mere trials and experiments in the progress of the invention, it was wholly immaterial whether they were continued or whether they were abandoned, because in neither case could they have been made use of as evidence of prior use for the purpose of invalidating the patent. It becomes necessary, therefore, from the context, to consider what it was that the learned judge meant by the word "trials," and I think that sufficiently appears by a reference to the former passage, which former passage, indeed, is only separated from the passage in question by the two cases to which the learned judge refers. He says, "the cases referred to at the bar have settled that the use must be public, that the existence and trial of regular machines of the very same sort, if abandoned, if not used and introduced into practice, is not public use and exercise thereof in the kingdom." Then he goes on, after stating the two cases, thus: "You will observe that it is settled that the trials founded on as a proof of prior use must have been continued, not abandoned, must have been continued to the time when the patent was granted." He is, therefore, obviously

Mere trials and experiments, though continued up to the date of the patent, will not vitiate the grant.

speaking of the same trials to which he had before referred, A.D. 1843. namely, trials of regular machines of the very same sort. And he says, "those trials of regular machines of the very same sort, if abandoned, will not be evidence of public use;" and that he so meant is quite obvious also from the concluding part of the sentence, where he says, "but it must have been known and used as an useful thing at the time." So that I understand the position of the learned judge to be this, that if the machine had been made, and had been put in trial, unless those trials had gone on, and the machines had been used up to the time of the granting of the letters patent, it would not be evidence of prior use so as to invalidate the letters patent.

Now I am obliged to say, with all deference to the learned judge, and with all respect to the learned judges of the Court of Session, that I think in that respect they are mistaken; and that if it is proved distinctly that a machine of the same kind was in existence, and was in public use, that is, if use or if trials had been made of it in the eye and in the presence of the public, it is not necessary that it should come down to the time when the patent was granted. If it was discontinued, still that is sufficient evidence in support of the prior use so as to invalidate the letters patent.

It appears to me that the learned judges in the court below were misled by the two cases that were cited by the learned judge who presided at the trial. There is an expression, supposed to have been made use of by Mr. Justice Patteson, at a trial at *nisi prius*, and reported I think in Mr. Godson's work, upon which reliance was placed (*h*). Whether that learned judge did really make use of that expression or not, I have no means of knowing (*i*); but when in another case (*k*) in the Court of Exchequer, a reference was made to the same passage in the summing up of that learned judge, Mr. Baron Alderson, apparently with the assent of the rest of the court, commented upon that observation, dissenting from the position.

Again, my lords, in the other case which has been referred to, which is also a *nisi prius* case, at which the Chief Justice of the Common Pleas presided, similar expressions are imputed to him (*l*). But when that case came before the Court of Common Pleas, in which they took time to consider their judgment,

(*h*) See in *Jones v. Pearce*, *ante* 124, which was printed from a copy of the short hand writer's notes, received from a source of undoubted authenticity; the note on the brief of the learned counsel (Lord Campbell) for the defendant is substantially the same. The report in Mr. Godson's work would appear to be derived from the same authentic source. See also *per* Lord Campbell, *post* 716. In the course of the argument the noble lords intimated their unqualified concur-

rence in the direction of Mr. Justice Patteson, when taken in connexion with the facts of that case.

(*i*) In the case of *Carpenter v. Smith*, *ante* 542. See *per* Lord Abinger, C. B., as to the grounds upon which the direction of Mr. Justice Patteson rested.

(*k*) In *Carpenter v. Smith*, *ante* 542.

(*l*) See in *Cornish v. Keene*, *ante* 509.

In the House of Lords.

The notorious use of an invention, though discontinued, sufficient to invalidate subsequent letters patent.

and in which the learned Chief Justice afterwards pronounced the opinion of the court, he did not state the position in those terms, but said, that if before the granting of the letters patent the machine had been in public use, that was prior use sufficient to invalidate the letters patent, and it is not necessary that the contrivance or the machine should be in use up to the time of the letters patent (*m*). If it is discontinued, provided it has been once in public use, and the recollection of it has not been altogether lost, if it has been once publicly used, it will be sufficient to invalidate the letters patent, although the use may be discontinued at the time when the letters patent were granted. I apprehend that is the law, and the known law upon the subject in this country. I never heard it before questioned, that the notorious public use of the invention before the granting of the letters patent, though it may have been discontinued, is sufficient to invalidate the letters patent.

Then, my lords, the remaining question for consideration is this, and it is an important one, whether if the learned judge laid down the law incorrectly to the jury, this was calculated to mislead the jury in the verdict that they were to pronounce. Now I apprehend that in this case it was eminently calculated to mislead the jury, and for the reasons I am about to state. The question related to the proceedings that had taken place at the Bradley Iron Works. It was contended that a machine similar to that of the pursuers had been publicly used at these works. And another point was raised also as to whether or not it was a mere experiment, or the actual use of a complete machine. It is quite obvious that as these were points for the consideration of the jury, the jury were liable to be misled, and greatly misled by the summing up of the learned judge, for the reason which I am about to state. When they retired for consideration they would naturally say, "It is a question for our consideration whether this machine, used at the Bradley Works, was a machine similar to that of the pursuers. And another consideration that we have before us is this, Was that machine simply in the course of experiment, or was it a complete machine." In order to disentangle themselves from the difficulty of deciding this question, they might immediately have said, and they would naturally have said, "It is quite immaterial for us to

(*m*) In *Cornish v. Keene*, *ante* 519. The passage referred to is, it is conceived, the following: "The question raised for the jury was this; whether the various instances brought forward by the defendants amounted to proof, that before or at the time of taking out the patent, the manufacture was in public use in England; or whether it fell short of that point, and proved only that experiments had been made in various quarters, and had been afterwards abandoned."

It should be observed with reference to the

distinction adverted to by the Lord Chancellor between the language of the learned Chief Justice of the Common Pleas at *nisi prius*, or in summing up the case to the jury (for which see *ante* 507—509), and when he delivered the judgment of the court (*ante* 519), that the alleged user, relied upon as defeating the patent, applied itself to about the date of the patent in question. The question of user and abandonment at any long interval before the date of the patent did not arise.

consider these points, because as that machine was afterwards A.D. 1843. discontinued, the learned judge has told us, that although we should be of opinion that the machines were the same, although we should be of opinion that the machine was not merely in the course of invention, but that it was completed for the purpose of practical use, yet the learned judge has told us, that unless that use has come down to the time, or about the time of granting the letters patent, it cannot be made use of as prior use for the purpose of invalidating the letters patent. It is unnecessary, therefore, for us to consider these points." That would have been the natural course which the jury would have taken. Therefore, it is perfectly obvious, that if the learned judge be incorrect in the manner in which he stated the law in the particular which I have stated, it was calculated to mislead the jury.

Now, my lords, if this were a motion for a new trial, having read the evidence, and having attended to the record, I really for one should feel strongly of opinion that we ought not to have disturbed the verdict, for I think the verdict is supported by the evidence. But when we come to consider a Bill of Exceptions, we are bound to take a different view of the subject, and if we are of opinion that the law was laid down incorrectly, and if we are of opinion that the jury may have been misled, we have no discretion to exercise—we are bound to say, under such circumstances, the exception must be allowed. For these reasons I am of opinion that the 11th exception ought to be allowed.

On a bill of exceptions, if the law was incorrectly laid down and the jury may have been misled, the exception must be allowed. *Aliter* in the case of a motion for a new trial.

With respect to the other exceptions: first, as to the 1st exception, I am quite satisfied by the arguments at the bar, that the learned judge did right in refusing to admit the evidence. The arguments at the bar have satisfied me, that according to the law of Scotland, and according to the course of proceeding in Scotland, the judge in that respect was correct. And with respect to the other exceptions, the 8th and 9th, it is unnecessary for me to enlarge upon them, because my noble and learned friends who are near me, and myself, expressed our opinions upon those points in the course of the argument, and I understand that they were ultimately abandoned by the learned counsel.

The statute, as to the notice of objections, does not apply to the proceedings in Scotland.

Under these circumstances, my lords, I should recommend your lordships to allow the 11th exception, and to disallow all the rest.

Lord BROUGHAM. My Lords: I entirely agree in the view taken, and for the reasons so luminously expressed, by my noble and learned friend on the woolsack, that the exceptions, all but the 11th, were properly disallowed by the court before whom the bill was brought, and that your lordships should disallow those exceptions here, affirming the judgment below; but I also

In the House of Lords. entirely concur with my noble and learned friend, that we have no choice here but to allow the 11th exception.

If the law be mistaken, and the direction tend to mislead, an exception must be allowed. This, as my noble and learned friend has justly remarked, is a different case from that of an application for a new trial. If we are of opinion, first, that the law has been mistaken, and under misapprehension has been erroneously delivered by the judge to the jury; and if we are, secondly, of opinion that the misdirection or mistake, in point of law, committed by the learned judge, had a direct tendency, I may almost say, an inevitable tendency, to mislead the jury in the conclusion to which they should come, and in the verdict which they should deliver, then, my lords, both of these questions being answered in the affirmative, that the law was mistaken, and that the mistake tended to mislead the jury in their verdict, we have no choice, but must allow the exception.

Now, my lords, a more important mistake, in point of law, your lordships will give me leave to say, could not possibly have been made by the learned judge than that into which the learned judge fell upon the present occasion. And I will not allow it to be said for one moment in dealing with this question, that there is any thing doubtful, that there is any thing speculative, that there is any new law to be laid down, or even any new topics, in respect of the law, about to be launched here, in dealing with the direction of the learned judge, for I speak with all possible respect for that learned judge's great ability and experience in his profession in Scotland, when I say, that this law which has been mistaken here by his lordship is a matter of as perfect certainty, as thoroughly known, and as little drawn into doubt in Westminster Hall, where the law is administered touching the construction of the statute of James, the patent act, as any one branch of the law most commonly known, and most frequently administered by our courts. The mistake into which the learned judge fell, and in which he was followed by his brethren in the Second Division, appears to me to have arisen from this. The patent act contains two exceptions—the proviso under which the monopoly is allowed to be granted, notwithstanding the statute prohibiting all monopolies for the future, saves to the crown the power formerly general, and now become limited by force of the act in two cases alone. In cases of inventions, the patent right, or monopoly, may be granted by the crown to a person, provided he be “the true and first inventor,” and provided also, secondly, that at the time of the grant of the monopoly of the patent, others shall not have used the same (n). Consequently, observe the result, if either he

(n) The noble and learned lord means, it is conceived, that this second question is involved in the former. The words of the statute are, “which others at the time of making such letters patent

and grant shall not use.” See statute, ante 31. In the course of the argument the same noble and learned lord expressed his opinion that these words of the statute are only cumulative. Post 713.

is proved not to be the true inventor, or if, being the true inventor, A.D. 1843. nevertheless it be proved that there has been a user at the time of the patent by others; in either the one case or the other the right flies off, the condition does not attach—which condition precedent must have existed in both those particulars to enable the crown to come within the benefit of the proviso, and to be saved from the prohibition of the act against all future grants of monopoly. The court below never seem to have kept those two distinct, which are perfectly distinct in their own nature. For a person may be disentitled to a patent who is the true inventor on account of user at the time, or he may be disentitled to a patent, though not used at the time, yet if he was not the first inventor: both titles must concur.

Now see how this mistake, with respect to the abandonment and continuance, arose. If an invention has not been completed, but if it all rests in experiment and trial, then it is a most material circumstance as a test, whether any given act of a party, other than the invention, was trial or complete invention; it is a most salutary and important test to apply with a view to ascertain that, to see whether he abandoned or continued it. If he abandoned it, if he gave it up altogether, and for twenty or thirty years did nothing, it is a very strong presumption that it was only experimental—not an invention completed. But suppose it was complete, and suppose it is admitted not to have been a trial—suppose it is allowed to have been an invention executed, if I may so speak, not merely executory, or not merely in the progress of invention, but an invention completed—then it is one of the greatest errors that can be committed, in point of law, to say that with respect to such an invention as that, it signifies one rush whether it was completely abandoned, or whether it was continued to be used down to the very date of the patent. Provided it was invented and publicly used at the time, twenty or thirty years ago, in this case forty years ago, it is perfectly immaterial, not immaterial to the second question, the second condition, namely, whether it was used or not at the time of the granting of the patent, but totally immaterial to the other question, which is equally necessary to be ascertained in the inventor's favour, whether or not he was the first and true inventor?—for he must be the first and true inventor, as well as the only person using it at the time, otherwise he is not entitled to the letters patent. Therein lies the error which has been committed by the learned judge. He dwells upon that, as if it were material in both cases; that is to say, to the question of "first and true inventor," to which it is not material, as well as to the question of user at the time, to which it is material. And I entirely agree with my noble and learned friend, in considering that there can be no doubt that, in using the word "trial" here, the learned judge does not mean it

An invention abandoned, must be presumed not to have been complete, but to have rested in experiment and trial.

*In the House of
Lords.*

as experiment, because (*ante* 690), just before the two cases are cited, he speaks of "the existence and trial of machines of the very same sort," and then he makes his observations upon it. Now, "existence" implies invention; "trial," there, is rather user than experiment; and all that passage, taken with what follows at the top of the next page, after citing the two cases and somewhat misunderstanding the import of the two cases, clearly relates to invention executed and completed.

These matters being duly taken into consideration, and there being in my apprehension no kind of doubt that the jury upon the trial would say, "Why should we consider whether it was used at the Bradley Works or not? Why should we consider whether it was a trial or a completed invention? Be it so that it was used forty years ago—be it so that it was a complete invention; we hear the learned Lord Justice Clerk telling us, that we need not trouble ourselves upon these points, for it is enough for us if it was abandoned, and that takes the facts out of the case, and leads us to find a verdict the other way."

Upon these grounds, my lords, we have no choice in this application, it being a bill of exceptions, we have no hesitation in saying, that the law was misconceived, and misstated to the jury. The law is undeniable, and I have no hesitation in supporting the proposition of my noble and learned friend, that the eleventh exception must be allowed.

LORD CAMPBELL. My Lords: This case has been treated very copiously and lucidly by my noble and learned friends who have preceded me, that I shall occupy but a very few moments of your lordships' time in offering a very few observations upon it. I entirely concur in the opinion that has been expressed upon the first exception. I think that the learned judge was perfectly justified and bound at the trial to reject the evidence which was rejected. It seems to me that that section of the recent act of parliament, about giving notice, does not apply to proceedings in Scotland. There are other sections of the act of parliament that apply to Scotland, but I think that this does not. The language employed shows that it was not so intended and there was this plain reason for abstaining from carrying into Scotland that provision, namely, that the law of Scotland required no such amendment, because, by the very salutary practice prevailing in that country, there is no danger of surprise, the condescendence and the statement upon the record being to be looked at as confining the general issue that might be granted to try the merits of the question. I am, therefore, clearly of opinion, that where an issue of this sort, which in the North is called a "general issue," is granted, the learned judge at the trial is fully justified in looking, and ought to look, at the record, and to confine both parties to the facts and circumstances which are therein alleged. Looking at the record in the

The section of the statute as to the notice of objections does not apply to proceedings in Scotland, the same object being obtained by the closed record.

case, it seems to me that it excludes evidence of this trial, A.D. 1843. which is supposed to have taken place at Irvine, and that the defender was not justified in entering into evidence of such trials at any of the places which are not specified in the record. I should have been most sorry indeed to have at all prejudiced the salutary practice which prevails in Scotland upon this subject, and I wish that in England similar rules prevailed. According to the ancient practice of pleading in England, there was notice given, because in a writ of right the demandant stated specifically the title that he made. But in an ejectment, nobody can tell what case is to be made on the part of the lessor of the plaintiff, and I can say, from my own experience, that I have repeatedly gone into court, being counsel for the defendant, where an action was brought to recover a large estate, not only ignorant of the particular facts that were to be given in evidence, but not knowing what title was to be made, whether the lessor of the plaintiff claimed as heir-at-law, or under a deed; whether he impeached the title of the purchaser in himself, or whether it was a question of parcel or no parcel. That certainly leads frequently to surprise in England, and renders it necessary, on the ground of surprise, that a new trial should be granted. A much more salutary system prevails in Scotland, which I know this house most highly approves of, and will most carefully guard.

The other exceptions, till we come to the 11th, turn upon the construction of the patent. Now in one stage of these proceedings, I certainly did entertain some doubt on that subject. But after the construction put upon it by the learned judges of the Court of Exchequer, sanctioned by the high authority of my noble and learned friend now upon the woolsack, when presiding in the Court of Chancery, I think the patent must be taken to extend to all machines, of whatever construction, whereby the air is heated intermediately between the blowing apparatus and the blast furnace. That being so, the learned judge was perfectly justified in telling the jury, that it was unnecessary for them to compare one apparatus with another, because, confessedly, that system of conduit pipes was a mode of heating air by an intermediate vessel between the blowing apparatus and the blast furnace, and therefore it was an infraction of the patent.

The invention being for heating in transitu, a comparison of apparatus is unnecessary.

But, my lords, when we come to the 11th exception, I most sincerely and deeply regret, after all this litigation, and when probably the verdict would have been the same, if the direction had been unexceptionable, I most sincerely regret that we are bound to allow it. I have struggled as much as I could against this exception; I was very anxious, if possible, to consider either that the learned judge was talking, either merely of experiments, or, if he was wrong in point of law, that the direction was immaterial. But, my lords, after very anxious considera-

*In the House of
Lords.*

tion of the record and the proceedings, it is impossible for me to get rid of the exception, either upon the one ground or the other. For the reasons stated by my noble and learned friends who have preceded me, it seems to me now quite clear that the learned judge was not speaking of experiments, but that he was speaking of prior use of the invention. That appears from the language of the learned judge himself. It appears still more clearly from the exception to which he did not object, and from the language of the learned judges of the Second Division, when the case came to be discussed before them. They did not at all consider that the observations of the learned Lord Justice Clerk referred to experiments. They all seem to have considered that it applied to the prior use of a perfect machine. Then, if that be so, there can be no doubt whatever that the law which he laid down upon the subject was mistaken; because, to suppose there may have been a prior use of the invention—of the perfected invention, for which the letters patent are granted, and that that prior use, publicly known, will not vitiate the patent if it has been abandoned but a few weeks before the date of the patent, strikes us in this part of the country with astonishment. That, certainly, is not the law as we have ever understood it, and I think, after the opinion of my noble and learned friends who have preceded me, I can have no hesitation in saying that that cannot be considered as the law of this country.

The prior use of a perfected invention, if such prior use be publicly known, will vitiate the subsequent letters patent for the same invention.

The learned judges in Scotland seem to me, with great deference, to have been misled by the expressions that are ascribed to Mr. Justice Patteson and Lord Chief Justice Tindal. I was counsel in the case of *Jones v. Pearce*, and I believe that the account of it in Mr. Godson's work is substantially correct (g). But what Mr. Justice Patteson may have said in that case, and what Lord Chief Justice Tindal may have said in the other case, taken in conjunction with the whole of their direction, amounts to this, that the abandonment may be material for the assistance of the jury, to consider whether it be a perfect invention or not; but assuming it to be a perfect invention, the abandonment becomes wholly immaterial. The learned judge, therefore, in Scotland, in assuming that the direction of the learned judges in England to the jury upon a point of fact, was laid down by the learned judges in England as a point of law, were certainly mistaken.

That being so, the only question then remains is this, whether this misdirection shall be considered as immaterial. But when I look at the form of the issue, I cannot say that it was immaterial, because the issue is, "whether the invention as described in the said letters patent and specification is the original inven-

tion of the pursuer?" You cannot say that it was the original A. D. 1843. invention of the pursuer, within the meaning of the statute, if it had been publicly known and practised by others before the patent was granted. It has been said, that there was no evidence. But I think that is a mistake. What conclusion the jury would have come to I know not, but at the Bradley Iron Works, there was such a machine, as Mr. Rutherford acknowledged at the bar, as would have amounted to an infraction of the patent, if that the use of it had been subsequent to the patent. Then that being so, I know not what conclusion the jury might have arrived at. They might have thought that this was a perfect machine—that it was the same machine, and that it had been publicly used. If they had been of that opinion, although it had been abandoned, they ought to have found a verdict for the defenders.

Under these circumstances, I regret exceedingly that I am obliged to concur in the opinion that has been expressed by my noble and learned friends, that this 11th exception must be allowed, and the consequence of that will be, that there must be a *venire facias de novo*, and that the cause must be tried by another jury.

The LORD CHANCELLOR: My lords: I wish to say, that if there had been any doubt whatever with respect to the meaning of the words used by the learned judge in summing up, those doubts would be removed by the concluding words, "that it must have been known and used as a useful thing at the time." What? The invention "must have been known and used as a useful thing at the time of the granting of the letters patent." That shows demonstrably what was intended.

It must not be understood that your lordships, in the judgment you are about to pronounce, have given any decision upon this state of facts, namely, if an invention had been formerly used and abandoned many years ago, and the whole thing had been lost sight of. That is a state of facts not now before us. Therefore, it must not be understood that we have pronounced any opinion whatever upon that state of things. It is possible that an invention may have existed fifty years ago, and may have been entirely lost sight of, and not known to the public. What the effect of this state of things might be it is not necessary for us to pronounce upon.

Seemle that the prior use and abandonment of an invention, if lost sight of and not known to the public, will not vitiate letters patent for the same invention.

Lord BROUGHAM: It becomes like a new discovery; the judgment is reversed upon the 11th exception, and affirmed upon the others.

Rutherford: Affirmed *quoad ultra*. My lords: May I be allowed to suggest that the remitting it to the court below to proceed accordingly would be sufficient to enable the court to give directions for a new trial. Of course, that would lead instantly to a new trial. It will be better if your lordships will

In the House of Lords. also remit to the Court of Session to deal with the question of costs, including this appeal, to the ultimate result.

Lord BROUGHAM: No; you cannot have the costs of this appeal, when upon the main point there is a reversal.

Rutherford: Unless your lordships give a special direction.

The LORD CHANCELLOR: It is not a case in which we ought to give costs on either side; I am afraid it is attended with great expense.

The judgments in the above case recognise and affirm the general rule of law, that the prior public use of a complete and perfected invention, though abandoned and not in use at the time of the granting of subsequent letters patent for the same invention, will vitiate such letters patent, inasmuch as such prior use negatives the title of the party as the true and first inventor; but the concluding observations of the noble and learned lords throw considerable doubt and uncertainty upon the practical application of the above general rule, since they import that cases may exist of the abandonment of the use of an invention, such as would entitle a subsequent independent inventor to valid letters patent for the same invention, provided the invention had been forgotten and laid aside, and the knowledge thereof so lost as that the invention should come upon the public as an absolutely new discovery. But whence is the evidence to be derived by which such a use would be proved? In the course of the argument the distinction which exists between the issue involved in the words of the proviso of the statute, "true and first inventor," and in the words, "which others at the time of making such letters patent and grant shall not use," was very much discussed; but the above judgments, except so far as they may be qualified or affected by the additional and concluding observations of their lordships, are founded on the former words, without regard to the latter, and as if the latter did never exist. For the purpose of presenting the real questions which arise under the issue on the words "true and first inventor," it will be convenient to consider the evidence applicable thereto, which may be divided into the following classes:—1. The specification of a prior patent. 2. Some work printed and published, or in circulation in this country. 3. The existence prior to the date of the patent of a machine or article of manufacture substantially the same as that which is described in, or the subject of the patent, with or without evidence of the actual use of such machines or manufacture.

1. With respect to the first of these, namely, the specification of a prior patent, that has always been held sufficient of itself to invalidate subsequent letters patent for the invention therein described, without any evidence of user. *Per Lord Ellenborough, C.J., ante 86*, and in the course of the argument in the principal case by Lord Campbell, "A prior specification substantially describing the same machine or invention has always been considered fatal to a patent, without going further by showing that it has been used."

Various reasons have been assigned as the ground of the above rule. It has sometimes been

said that knowledge and the means of knowledge are the same thing, and this may well be so in some cases as matter of law, and in the particular case of the specification of letters patent it may be said that the public are bound to take notice of whatever is of the nature of a public record, and as such enrolled in the court of Chancery. *Asie, 86, n. c.* But on the authority of the principal case, the rule may be considered to rest simply on the ground of negating the title of the party as the true and first inventor, and the grant of letters patent and the enrolment of the specification describing the complete and perfect invention, would appear to be the best evidence to negative the title of a claimant under subsequent letters patent as the true and first inventor. With reference to the distinction so much insisted on in the above judgments between experiment and invention, complete and perfected, it may be suggested, whether the obtaining letters patent for an invention fully described in the specification, and proved to answer, is not conclusive evidence that the invention was complete and perfected, and did not rest in experiment, speculation, or suggestion.

2. With respect to the legal effect of the publication in a book—On the principle above referred to, that knowledge and the means of knowledge on the part of the public are the same, and that the public has acquired little or nothing by the specification which it did not possess before, it has been generally assumed that the production of a book which was in the hands of the public before the date of the patent, will negative the title of the patentee as the true and first inventor.

Thus, on the argument of the above case, Lord Lyndhurst, L.C.: "If the machine is published in a book, distinctly and clearly described, corresponding with the description in the specification of the patent, though it has never been actually worked, is not that an answer to the patent? It is continually the practice on trials for patents to read out of printed books, without reference to any thing that has been done."

Lord Brougham: "It negatives being the true and first inventor, which is as good as negating the non-user. The book that is generally referred to is, the 'Repertory of Arts and Sciences.' It must not be a foreign book, but published in England."

The important distinction last adverted to was recognised by Lord Campbell in a recent case before the Judicial Committee of the Privy Council, on some foreign books being put in to show the state of knowledge on subjects closely connected with the invention for which letters patent were sought to be extended. That noble and learned lord observed, "that sitting there he should be in-

fluenced by what had been published in a foreign journal, but in a court of justice he should require that it should be known in England." *Post*, 733.

The distinction thus made between the legal effect of publication in an English and in a foreign book, would appear to establish this important doctrine, that it is a question for the jury, whether such foreign work was known in England at the time the letters patent were granted; or the question would rather appear to be, whether the inventor derived his knowledge from such source, or whether the work was so known that the inventor must be presumed to have derived his knowledge from that source. If this be a question for the jury in any case of publication in a book in the hands of the public, whatever its nature, and however limited its circulation, but which, had the public required it, might have been in extensive and general circulation, it is not very easy to see on what principle, or why the same question may not be for the jury in any case of publication by any book. From the observations of the learned Chief Justice Tindal in several recent cases (*ante* 592, n. c, and the cases there referred to), this would appear to be a proper question for the jury.

If in any case it is a question for the jury, whether a person did actually borrow, or is to be presumed to have borrowed his invention from a published book, or whether the account contained in any published book was or was not known in England by reason of such published book? but it is not a question for the jury, in the case of an account contained in a specification, that difference must be founded on the fact of the prior grant by letters patent, and that the specification, being matter of record, is a publication of which the public are bound to take notice; whereas the public cannot be presumed to take notice of, or to be acquainted with, all books. The work referred to by Lord Brougham is principally devoted to the publication of specifications; the fact of the existence of a specification, whether so published or not, negatives the title of any person subsequently claiming to be the true and first inventor of an invention substantially the same as that described in such specification.

But whatever may be the peculiar circumstances under which the publication takes place, the account so published, to be of any effect in law as a publication, must, on the authority of the principal case, be an account of a complete and perfected invention, and published as such. If the invention be not described and published as a complete, perfected, and successful invention, but be published as an account of some experiment, or by way of suggestion and speculation, as something which peradventure might succeed, it is not such an account as will vitiate subsequent letters patent. See *per* Lord Abinger, C. B., *ante* 534. It would appear to be a test not wholly inapplicable to cases of this nature, to inquire whether what is so published would be the subject of letters patent, because, inasmuch as that which rests only in experiment, suggestion, and speculation, cannot be the subject of letters patent, it would be unreasonable that what could not be the subject-matter of letters patent, supposing letters patent granted in respect thereof, should vitiate letters patent properly granted.

3. The third class of evidence is the production of a machine or article of manufacture with or

without proof of actual user anterior to the date of the patent. On the authority of the above case it would appear that the production of such a machine or article of manufacture, without actual proof as to its use, or any evidence as to whence it originally came, or as to its mode of manufacture, would vitiate subsequent letters patent for such a machine or article of manufacture, as negating the grantee of such letters patent being the true and first inventor. With reference to this head, two distinct cases may occur—the one in which the machine or article of manufacture so produced shows at once its mode of manufacture—the other in which the machine or article of manufacture does not present any means of knowledge to the public, so as to enable any person to reproduce the same. There may be many various modes of attaining a result, and an article of manufacture may be the subject of various patents. The term "new manufacture" may be satisfied either by a thing that is made then for the first time, or that is made in a new way then for the first time. An arrangement of material parts, as a simple combination of the elements of machinery, discloses its mode of manufacture to the eye on inspection, but with respect to a paint, or a dye, or a medicine, and many other inventions, a mere inspection of the result attained will convey no information as to the mode of manufacture. The distinction just adverted to relates to the doctrine, "that knowledge and the means of knowledge are the same;" but independently of this, this last class of cases, depending upon user, differs altogether from the two first-mentioned classes of cases, depending upon publication in such a form as to preserve and communicate the knowledge to the public. The following observations with reference to this question were made in the course of the argument on the principal case.

Lord Lyndhurst, L. C.: "Look to the words of the statute; 'The declaration before mentioned shall not extend to any letters patent and grant of privilege, of the sole working or making of any manner of new manufacture within this realm, to the true and first inventor of such manufacture, which others at the time of making such letters patent and grant shall not use.' If the invention is in use at the time that the grant is granted, the man cannot have a patent, although he is the original inventor; if it is not in use, he cannot obtain a patent if he is not the original inventor. He is not called the inventor who has in his closet invented it, but who does not communicate it: the first person who discloses that invention to the public is considered as the inventor. The party must be an inventor, you need not say the inventor, because another may have invented it and concealed it: but in addition to his being an inventor, others must not use the invention at the time of the patent."

Lord Brougham: "The statute excludes from a patent the true inventor who shall have made the invention so public that others at the time of the granting of the patent shall use the invention. The public have lost the consideration for the patent, namely, the specification which is given. The words 'true and first inventor,' and 'which others at the time shall not use,' are cumulative."

Lord Lyndhurst, L. C.: "He must be the first inventor, and it must not be in use at the time of granting the patent. For the purpose of meeting the case as to the point, that he is the first in-

ventor, evidence may be gone into to show that a person used the invention for a year or two ten years ago, and then ceased to use it. That has nothing to do with the use at the time the letters patent were granted. Admitting that he is the inventor, if the invention is known and used at the time at which the patent is granted, in that case the patent is void; that is the sense in which the words 'used at the time of the grant of the letters patent' are employed."

Upon the above words of this noble and learned lord, "known and used at the time," the question arises as to what is the kind of knowledge and use whereby letters patent will be vitiated.

Suppose an article of manufacture, an encaustic tile, for instance (*post* 736), or a particular species of painted glass, such as was well known in the middle ages, to have been manufactured at a certain period in this country in secret, or if not in secret that the whole knowledge of the art was lost, but that such tiles and painted glass were known and in use before the eyes of the public to the present time, and that it was a great desideratum that the art should be discovered, and that some ingenious man discovered a mode whereby tiles and painted glass, apparently the same, could be produced, and published that mode to the world under letters patent, would the knowledge and use of the tiles or painted glass at the time such letters patent were granted vitiate such letters patent? no knowledge or use of the invention as an art existing at the time of the grant. The knowledge of the fact of the existence of an article of manufacture, or the daily use of such an article, cannot, it is conceived, be knowledge and use of the invention within the meaning of the above terms, so as to vitiate subsequent letters patent. If such knowledge of the existence of an article and use of an article convey at once the requisite information as to its mode of manufacture, the case is different from that above supposed, which assumes the absence of that very knowledge which it is the object of the letters patent and specification to communicate and bestow. What has once been given to the public cannot be resumed; the public being in possession of any species of knowledge, there is no consideration for the exclusive privileges granted by subsequent letters patent; there is no fresh knowledge to be communicated to the public through the medium of the specification, to constitute the consideration upon which the letters patent are granted; such knowledge being the price and bargain for the grant, or that which the public get in return for the limited monopoly. It would appear therefore, on principle and on reason, that the knowledge of an invention which is to vitiate letters patent, must be knowledge of the same kind as that above referred to, namely, such knowledge or such means of knowledge, as will teach others to practise the invention.

A similar ambiguity attaches to the word "use," and the question arises, whether the use of an article under the circumstances above mentioned will vitiate subsequent letters patent, granted to a person who introduces the knowledge of the manufacture. In determining this question, regard

must be had to the proviso of the statute, which declares, that the previous declaration against monopolies shall not extend to any letters patent of the sole working or making of any manner of new manufacture within the realm. The working and making of the article to be produced is the subject of the grant, not the use of that article when produced, and the meaning of those words is well defined by the exposition of the law as stated in the case of monopolies (*ante* 6), and recently recognised and adopted by the Court of Common Pleas, in the case of *Crane v. Price*, in the following terms, "when any man by his own charge and industry, or by his own wit or invention, doth bring any new trade into the realm, or any engine tending to the furtherance of a trade, that never was used before, and that for the good of the realm, in such cases the king may grant to him a monopoly patent for some reasonable time, until the subjects may learn the same, in consideration of the good that he doth bring of his invention to the commonwealth—otherwise not." So that the subject of the grant, according to the old common law, on the authority of this case, is to be a new trade, or an engine tending to the furtherance of an existing trade, provided such trade or such engine had never been used before, whereas according to the statute, the condition would appear to be limited to the trade or engine being in use at the time of the grant. But then the difficult question arises, if ever in use, after what period, or under what circumstances, is the title of the party as the true and first inventor not to be negated? The observation of Lord Brougham (*cited above*), that the latter clause of the statute is cumulative in effect, places the whole question on the issue of the true and first inventor, independently of the question of publication or prior use. It is, however, established, that these terms are not applicable to the case of a person who has made the invention, and confined it in his own breast or closet, or to one who has only speculated about it without attaining any practical result, but it has been expressly held that the terms are applicable to that person only who shall have invented, published, and introduced into, or put in use, a complete, perfect, and finished invention. The adoption, or the general knowledge, of the invention, by the public is not necessary. The title of a person who subsequently lays claim to any exclusive right in respect of the same invention is defeated by the fact, that the complete and perfected invention was so published, or put into public use. But the concluding observations of the noble lords, as has been already observed, create considerable doubt and difficulty in the application of the above principles, and the only case to which they appear to be applicable, is that of a prior patent, never acted on, and from which the public never derived any practical benefit. Suppose the subject of such patent to be re-invented after fifty years, and to be introduced into general use, and to become part of the manufactures of the country, would the title of such subsequent and independent inventor be defeated by the grant of the prior patent? See *ante* 86, *n. c.*

EXTENSION OF TERM OF LETTERS PATENT.

SIMISTER'S PATENT.

*Cor. Lord Campbell; Sir H. Jenner; Dr. Lushington; and
Mr. Justice Erskine.*

*In the Privy
Council.*

This was an application for an extension of the term of the petitioner's patent of the 18th of December, 1828, for "improvements in weaving, preparing, or manufacturing a cloth or fabric, and the application thereof to the making of stays and other articles of dress, which improvements are also applicable to other purposes." Dec. 7th & 8th,
1842.

The petition having briefly described the method of making stays before the date of the patent, namely, by sewing or stitching two pieces of cloth together, in such manner as to leave the requisite spaces for the introduction of the whalebone or other materials, stated experiments by the petitioner during three years, and his discovery of a method of weaving a double fabric suitable for stays, the requisite open spaces being left in the process of weaving. The petition then stated the expenses incurred and difficulties encountered in making and introducing the invention, particularly the opposition by the wholesale houses, and the prejudice created by reports industriously circulated, that the stays would not bear washing. The petition then stated the particulars and expense of the litigation in which the petitioner had been involved; that no profits had been received for some time, and that the profits during the last six years had not equalled the petitioner's losses; so that on the whole, there had been a loss on the invention. A disclaimer had been enrolled as to so much of the invention as did not relate to stays. *The petition.*

The notice of objections stated, as grounds of opposition, various objections to the validity of the patent—that the petitioner had compromised the legal proceedings referred to in the petition by the payment of money, with the view of prejudicing and deterring other parties known to the petitioner to be infringing the patent; that in consequence of the petitioner's not interfering to stop such infringements, the opponents had embarked a large capital in machinery for manufacturing the stay fabric by steam power, and that it was not until the fabric so woven by steam power drove out of the market the fabric woven in the loom, that the petitioner thought of amending his patent by disclaimer with a view to the present application. *Notice of objections.*

M. D. Hill, and Webster, appeared for the petitioner; Sir W. Follett, S. G., and Cowling, for the opponents.

*In the Privy
Council.*

The witnesses described the old or stitched stay to have been made by sewing together two pieces of fabric at certain intervals for the interstices into which the bones, wadding, or other materials, were to be inserted; whereas, according to the petitioner's invention the proper interstices were left, and the cross stitching according to the particular pattern of the stay put in, during the weaving of the fabric in the loom, so that the stays, excepting where the interstices existed, were of one uniform fabric. The result of this was a uniformity of texture and elasticity throughout the stay. Weaving in such a manner as to leave spaces was described to be old, stiffer cloth having been made in that way, but no fabric suitable for stays, or with the proper spaces as to size and arrangement, had been made in a loom; a fabric with similar spaces could be made by power weaving, but such fabric would not have the drops and cross stitching generally considered as important, and was in other respects inferior for the purpose of stay-making.

The prejudice against the stays in the first instance was described to be great; some persons believing them only to be stamped, others that they would not bear washing. They were sold at the same price as the stitched stay, but the saving to the manufacturer upon the cost of production was from 4*d.* to 6*d.*, and this was consequently taken as the measure of the profit on each stay; the profit on the stays sold during each year, from 1829 to 1841, was as follows: £9, £45, £13, £77, £80, £167, £180, £161, £86, £81, £160, £91, £120. In 1838, the stay of a fabric made by power weaving came out; it interfered materially with the petitioner's stay, being sold at a lower rate.

With respect to the money paid by the petitioner, and the alleged compromise, it appeared that the defendant in the suit had pledged a large quantity of the cloth, which at the termination of the suit the petitioner redeemed, in order to prevent its getting into the market. The petitioner did not appear to have had knowledge of the opponents being the parties engaged in infringing his patent, though it was certain that stays of a fabric made by power weaving were in the market, without any legal proceedings being taken. The short portion which remained of the term of the patent, after the enrolment of the disclaimer, was suggested as the cause of this.

Sir W. W. Follett, S.G., on behalf of the opponents, contended that the prayer of the petition could not be granted, on the three following grounds: 1st, That there was not sufficient public benefit in the invention; 2nd, That there was no peculiarity in the situation of this patentee to entitle him to the extraordinary relief asked for; and 3rdly, That the petitioner had slumbered on his rights, and been guilty of such negligence in not proceeding against the alleged infringements, as would

effectually preclude him from succeeding in the present application. A. D. 1842.

Firstly. In all the cases which had hitherto occurred of the Judicial Committee of the Privy Council recommending an extension of the patent, some case of great public benefit and utility had been laid before the committee. Here the invention is of a trivial kind, possessing but very little novelty and a small degree of utility. Weaving spaced fabrics was known before; any body might have applied such fabrics to stays. The fact of the slow progress of the sale showed but a small degree of utility, and was itself an answer to the application. The public did not get their stays cheaper. Where then was the public utility and benefit? Secondly. There are no peculiar circumstances connected with this patent, either of hardship or utility. The applicant must satisfy the court that from some particular cause he has not derived the benefit which he might have expected. It is not sufficient that the patent article does not sell; this is a common case, and affords a very strong presumption against the utility of the invention. The petitioner must show some particular difficulty arising from the prejudices of the public, or the opposition of the trade, so as to account for not having derived an adequate remuneration from the invention. The allegations in the petition as to the prejudice and opposition have not been supported by the evidence. [Lord Campbell: A patent may be a long time in getting into use; but if it then becomes known, and is really a good and useful patent, it becomes at once in great demand.] The petitioner shows by his disclaimer that he has been in the enjoyment of an invalid patent for thirteen years; he admits that the invention was only useful as regarded stays; a patentee has no right to lie by, resting on an invalid patent, and then avail himself of the provisions of the statute, in order to interfere with what others have been doing in reliance on the invalidity of the patent. Thirdly. The petitioner has slumbered on his rights, and parties had been permitted to infringe with impunity. The patentee must have known of these infringements, and no steps were taken to put a stop to them; the consequences of an extension would be, that these parties would be immediately involved in litigation; it would be a great hardship upon those who, relying on the invalidity of the patent, and the inactivity of the patentee, have expended capital upon machinery for the manufacture of the fabric, to be subject to actions for past infringement. [M. D. Hill: The petitioner will release any right of action for past infringement.] [Lord Campbell: How can that be secured?] [Webster: It might be done by the insertion of a proviso in the new letters patent, as in the case of the extension of Whitehouse's patent for gas tubes, where new letters patent were granted to Russell the assignee. The securing of

The fact of an invention when known not getting into general use, is a presumption against its utility.

*In the Privy
Council.*

an annuity of £500 per annum to the original inventor, was recited in the new letters patent as part of the consideration of the patent, and a proviso was inserted, rendering the new letters patent void if the annuity should not be duly paid. The queen's warrant directs the Attorney General to insert any proviso he may judge requisite. In the present case a proviso might be inserted for avoiding the new letters patent if any action be brought for past infringement.] That would not meet the justice of the case. What is to become of the machinery and stock in trade, &c., of the parties? On the above grounds, this is not a case for the exercise of the extraordinary jurisdiction which has been entrusted to the court.

Judgment.

Lord CAMPBELL: Their lordships are of opinion, that in this case there is not sufficient ground laid for reporting to her majesty that the patent ought to be renewed.

GALLOWAY'S PATENT.

May 13, 1843. *Cor.* Lord Brougham; Lord Campbell; Sir J. Wigram, V.C.; and Dr. Lushington.

This was an application by James Lancaster Lucena, as the assignee of certain letters patent granted to Elijah Galloway (*a*), "for certain improvements in steam engines, and in machinery for propelling vessels, which improvements are applicable to other purposes (*b*)."

Sir W. Follett, S.G., and Butt, appeared in support of the petition, which stated that the patents had been obtained at the sole expense of William Morgan, and assigned to him accordingly. The petitioner had purchased one-fourth share in the patents of Morgan for £4000, in 1830; and in 1831, Morgan had assigned the other shares in the patent, with some other property, as a security for the further sum of £5400, advanced by the petitioner to enable Morgan to complete and carry out the invention. On the bankruptcy of Morgan in 1832, the other property was realized, and the petitioner proved under the bankruptcy for the sum of £3400, and by an arrangement with the assignees became the sole proprietor of the patents, and thereupon granted a sole and exclusive license to Morgan, under which he continued to practise the invention until the bankruptcy of

(*a*) The letters patent for England and the Colonies, 2nd of July 1829, and for Scotland, 3rd of August, 1829.

(*b*) See the specification, ante 166.

Messrs. Acraman, Morgan & Co., of Bristol, in the last year. A.D. 1843. The petitioner had incurred great expense by the proceedings against Messrs. Seaward (*ante* 167), and the subsequent disclaimer and memorandum of alterations (c). The original inventor concurred in the present application. The losses of the petitioner in respect of the patents amounted to about £8000.

The papers containing the advertisements (d), the two letters patent, copies of the specification, disclaimer, and memorandum of alteration, certified as office copies. The petitioner's title was proved by calling the attesting witnesses to the execution of the deeds of assignment, their lordships having intimated that the title must be strictly proved, and that an admission by the opponent's counsel would not do.

On the witnesses who described the invention being cross-examined as to the want of novelty and utility of the invention, their lordships intimated, that in the case of a recommendation to the crown for an extension of the term, the new letters patent were subject to any objections which might exist to the original letters patent, and that unless it was contended that the invention was altogether useless, it was not the practice of the Judicial Committee to enter into these questions, especially after there had been a discussion upon them in a court of law. The nature of the evidence adduced will appear from the judgment of the court.

M. D. Hill, and R. V. Richards, opposed the petition on the grounds of want of merit in the petitioner, and also in the invention. The petitioner advanced money on the patent as a commercial speculation; the security had turned out to be bad; he had contributed nothing to the success of the invention: if the concern in which Morgan was interested had not failed, the petitioner would have been paid off in full, and have had no interest in the letters patent whatever, and no title to come here. [Lord Brougham: The petitioner is a mere assignee; is he within the act?] [Sir W. Follett, S.G.: It has been so decided in several cases (e).] [Lord Brougham: The words of the act are not very clear, but I believe the committee thought it for the benefit of patentees that the

(c) The disclaimer enrolled by the petitioner and Morgan, disclaimed so much of the said invention as related to the improvements in steam engines, and the words in the title, "which improvements are applicable to other purposes," were disclaimed. A memorandum of alteration, adding explanatory matter to the specification, was also enrolled. It was made a condition of the enrolling of the disclaimer and memorandum of alteration in this case, that the defendants should have a license to use the particular machinery in respect of which the above action was brought.

(d) The "Gazette," of the 24th, 27th, and 31st of January; the "Morning Chronicle" and "Post,"

of the 26th, and "Morning Advertiser," of the 27th, and three "Times." The petitioner resided in the Temple. It did not appear in evidence where the manufacture was carried on, and no objection was made to the sufficiency of the advertisements.

(e) See *ante* 487-8. Of the seventeen extensions up to the end of the year (1843), six have been to assignees, one (Downton's, *ante* 565) to the administratrix of the grantee of the original letters patent, and the remaining ten to the patentees. Five applications were refused, and about the same number abandoned by the parties before the hearing.

*In the Privy
Council.*

assignee should represent the whole merit of the inventor.] Secondly, the invention itself has not such a degree of merit as to give any claim to an extended term. Even if the invention, as described in the specification, would be of any use, which is extremely doubtful, it would not now be applied without various subsequent improvements, from the use of which the public would be excluded if the term of the patent be extended. [Dr. Lushington: Your argument is, that the invention as described is not now practically useful without the improvements that have been made in it; and that therefore the term of the patent ought not to be extended so as to deprive the public of those improvements, without which, in the present state of steam navigation, the principle of the original patent cannot be usefully applied.] Exactly so. The original grant has amply repaid the merit of the invention as described. [Lord Brougham: But there has been no profit; if there had been, your argument would have some weight.] The patent as originally granted was void. The litigation now urged as a ground of hardship was the consequence of the patentee claiming more than he was entitled to, and but for this, large profits might have been made; that very ground of invalidity is brought forward as a reason for the extension.

The nature of the evidence in support of the opposition will be seen from the judgment of the court.

Sir W. Follett, S.G., in reply. The petitioner, according to the principles which have been acted on by the Judicial Committee in other cases, represents the whole merit of the original inventor. His capital has been employed to introduce and spread the invention. The want of success which has hitherto attended the invention is almost inexplicable, and can only be referred to the impediments which the prejudice of manufacturers, conflicting interests, and the expense of changes, oppose to the introduction of the greatest improvements. The advantages of increased speed, and of overcoming the vibratory and tremulous motion, cannot be denied, and the improvements relied on as an answer to the present application relate to things not within the patent, which is for causing the floats to enter and come out of the water at the proper angle.

Judgment.

LORD BROUGHAM: In this case their lordships have had before them, on one branch of it, a great deal of evidence on either side, respecting which this observation arises, that it cannot really, on examining it upon any point whereupon the decision of their lordships can ultimately turn, be said to be conflicting evidence. It appeared for instance to be a conflict, at least by the evidence of one of the witnesses, who said that the "Confiance" had, the fourth time she was fitted with wheels, not the paddle-wheel in question, but another wheel, he did not know exactly what, but not that he thought; but we have on the other side Mr. Morgan, who made the paddle-wheel in both

cases, and who gave a very fair, and impartial, and careful account of it, and he gave most distinct evidence upon his oath to the fact, that the first and second and third paddle-wheels were all set aside, having failed from some defect in their power, and that the fourth was made according to the principle of the first, which was according to the model of the four floats at the end of the vane at the outside of the spindle, and according to the plan, without any of the alleged improvements in the frame, although there can be no doubt, and it is past contention, that it does not admit of a choice between the two. It must, however, be observed, that it cannot here be said, that the difference between the float being at the end, or outside of the spindle and the balance floats, or the float part of which is inside and part outside the spindle, is a material difference or an improvement; if it were an improvement in the invention, that might be urged, but the patent is not taken out, as we understand it, for that particular construction of the wheel; the patent is taken out for a mode of making floats (whatever they are, whether the balance float or the single float, whether floats partly inside and outside the spindles, or floats entirely inside the spindle, whatever may be the mode and manner of making the float) enter and go through the water at a particular angle, and then quit it at another angle—at such an angle as shall oppose resistance to the water—that being the object to be attained; the principle being thereby applied, of opposing the greatest space in the most advantageous form, to give resistance where resistance is wanted for the power, but is only wanted to withdraw it, either through the water in the first instance, or through the air in the next, upon the ordinary principle of feathering an oar.

Now it appears that improvements were made in the float, such manifest improvements, that no person would after these ever think of persisting in using the invention as it originally stood, but would have recourse to the improvements. That, however, is no reason against the claim of the original inventor, it is only saying that his invention, though useful, has been capable of improvement, and its having been improved affords no reason for denying him an extension of the patent, if upon other grounds he has merit, and if upon other grounds he has shown not to have reaped a due benefit in proportion to that merit. If such an argument were to prevail, any improvement made by him upon the patent would at once take away the patentee's right to obtain under whatever circumstances he may come before this court, a recommendation to have under the act of parliament, an enlargement of the term.

The fact of great improvements having been made on the original invention, affords no objection to the extension of the term.

Some difference of opinion has been expressed by persons of great learning, experience, and ingenuity, in their several departments, but in weighing the testimony of those gentlemen much

*In the Privy
Council.*

depends, as it is in conflict, upon the spirit in which the testimony is given. Now I think the testimony of Mr. Morgan to the excellence of the invention, and to its perfect use when in the Confidence, and to the perfect success of the same invention applied to the Trieste, was given in a manner far more to conciliate one's confidence than the very coloured statement which some of the witnesses gave, very ingenious and very honest men, Mr. Barnes, for instance, and Mr. Farey. Yet these gentlemen appear to labour under very considerable excitement with regard to this patent, so much so, that Mr. Barnes said, in answer to a very simple question, that he never saw such an attempt at mechanism in the whole course of his life; he would not allow it to be mechanism. Now that is very much like the reverse of the evidence that was given in favour of the patent, and even the other evidence given against the patent was in favour of its being mechanism, especially taking into consideration that for which the patent is claimed, namely, not one particular mode of constructing the axle, or one particular mode of placing or constructing the float rather than another, or of making the wheel rather than another, but one particular mode by which the angle is to be varied, at which the float, however constructed, or the wheel, however made, enters, goes through, and emerges from, the element in which the force is to be gained. Their lordships are therefore inclined to think, that there is no reason for doubting the merits of this invention, and a very useful invention it is, though one really is somewhat at a loss, the more one sees of it, to understand why hitherto it has not been more generally and more largely used; I hope that it will come more into use for the benefit of the public. It appears that it has increased from an hour to an hour and a half, and two hours, the speed of vessels, and it also appears to get rid of a most painful and irksome part of steam-boat travelling—the trembling vibrating motion. One hopes therefore that it may succeed. The evidence of Capt. Kennedy is very material in this respect, and though Mr. Farey gave a very confident opinion as to the frail nature of some parts of the wheel from its being half axle, and that it must be very bad to use, this is to be observed, that Mr. Farey was never in one of those vessels in bad weather. Now if this kind of half axle is so very bad to use, and so very little to be relied upon, one does not really quite understand how it was possible for Captain Kennedy to have weathered that dreadful hurricane, which appears to have been one of the most severe hurricanes that one ever heard a description of, so much so, that four vessels perished in coming out of harbour, and vessels were actually driven from the harbour, great and small, and exposed to great jeopardy during the continuance of that gale; his vessel appears to have been most roughly handled by the hurricane; nevertheless this

paddle-wheel seems to have done its duty admirably and power- A.D. 1843.
fully, and another would not have done so well.

Upon these grounds their lordships are to consider, whether or not a profit has been realized by the patentee. Now it appears that from four years' litigation, entailing an expense of £2423, including the expense of taking out the two patents, and including the expenses always attendant upon bringing a patent invention, however useful or however much approved of by the public, into use, and deducting the expense of the steam engine, which was set aside, and afterwards exported, and deducting all expenses not belonging to this very invention itself, by an examination very strictly gone through, both by the bar and the court of persons called for that purpose, the £6000, which has been received, has been considerably more than exhausted by that expenditure. And then we are to observe, that the £6000 was not, properly speaking, the patentee's profit, it was not the profit of the monopoly, but the profit which any manufacturer employed to make these vessels with these engines would have derived by it, who had no right to the patent, and no right to the monopoly. That is a very material circumstance, for it shows that all the poor inventor got by this patent was a sort of priority in this market, a preference in obtaining those orders, and no profit whatever from his monopoly. Not only, therefore, was the expenditure greater than the profit received, but the proportion of that expenditure to him was still greater.

As to the profits and deductions to be made in estimating them.

A manufacturer's fair profit must be deducted.

Their lordships, taking all these circumstances into consideration, are of opinion that they ought to recommend, under the powers of the act, that the patent should be extended, and they consider the fit and proper period of that extension should be five years (f).

Sir W. Follett, S.G.: I do not know whether in this case I ought to apply to your lordships, as we have been put to very great expense by the opposition, that we should have any costs. I find that your lordships have done that in similar cases (g).

Lord BROUGHAM: No costs ought to be allowed.

SOAMES'S PATENT.

Cor. The Lord President; Lord Brougham; Dr. Lushington; June 21, 1843.
and Lord Campbell.

This was an application by the grantee and assignees of letters patent, granted September 9th, 1829, for "a new prepa-

(f) New letters patent were granted to James Lancaster Lucena accordingly.

(g) See ante 567.

In the Privy Council.

ration or manufacture of a certain material produced from a vegetable substance, and the application thereof to the purpose of affording light, and other uses" (a).

The petition.

The petition stated that the cocoa nut oil, which at the temperature of the East Indies is a fine fluid oil, may be produced

(a) *Specification.*—The specification declares "the nature of the said invention or discovery to consist in preparing or manufacturing the material or substance commonly called cocoa nut oil, by subjecting it to the process of hydraulic or other suitable pressure, by which process I separate the elaine, by which I mean the more fluid part from the stearine, by which I mean the more solid part, and thereby obtain two products—one fit to be applied to the manufacture of candles, and the other to burning in ordinary lamps, and other purposes." The specification then describes the mode of pressing the crude cocoa nut oil, and the manipulation of the stearine and elaine, whereby they are obtained—the one in a state fit for the manufacture of candles, according to the ordinary process of making mould tallow candles; the other for burning and other uses to which oil is applied; and concludes as follows:—"Now, whereas the process of separating the elaine from the stearine, by pressure, in manner aforesaid, has never before been applied to the substance called cocoa nut oil; and, consequently, no product has heretofore been obtained thereby from that substance, fit for being manufactured into candles in the ordinary way, or for being refined by any of the usual modes so as to burn in ordinary lamps; both which objects are obtained by my method of preparing or manufacturing the said substance. And whereas, I therefore hereby claim as my invention or discovery, the manner hereinbefore described of preparing or manufacturing the substance called cocoa nut oil, by hydraulic or other suitable pressure, and the application of the products obtained thereby, one to the purpose of making candles, and the other to the purpose of burning in ordinary lamps, without the necessity of applying the conductors of heat, and other contrivances now adopted when cocoa nut oil in its ordinary state, as imported, is used for burning, and also to other uses."

Wilson v. Tindal.

A bill had been filed (Nov. 17, 1841) by the plaintiffs, the assignees of the above patent of Soames, to restrain the defendant from infringing the patent, and the Master of the Rolls in granting the injunction, 26th November 1841, delivered the following important judgment:—

Lord Langdale, M. R.: Having regard to the arguments on the validity of the patent, to the enjoyment of it by the plaintiffs, and to the evidence which appears upon the affidavits which have been made in this case, I am of opinion that the injunction which is applied for ought to be granted.

The question for consideration is, whether any terms ought to be imposed upon the plaintiffs, or whether any other mode of investigating the facts than that which is adopted in the usual course of proceeding in this court ought to be adopted. It

is to be observed, that all orders made on applications of this kind are merely interlocutory orders; they do not bind the right between the parties. The injunction which I have stated it to be my intention to grant, will be an injunction, of course only till further order. It will not be a perpetual injunction; not an injunction to continue during the continuance of the patent. Notwithstanding this order, the defendant may put in his answer, he may displace all the affidavits which have been filed on both sides. The plaintiff and the defendant may respectively proceed to evidence, they may bring this cause on for a hearing, and upon the hearing of the cause, the whole case, the law regarding the patent, and the facts which will appear upon the depositions, will have to be reconsidered, and that reconsideration may, for any thing that can be known to the contrary, justly end in a result different from that which I have come to upon the present occasion.

The defendant having his option to adopt this course of proceeding, has at the bar expressed his desire to have this matter tried at law. If he were left merely to prosecute a *scire facias* for the repeal of the patent, that would be one part of the question which he might in that way try. But there are other questions subsisting between the parties regarding matters of fact, which could not be tried in that way.

Now it has been stated by Lord Cottenham, that he recollected no instance in which the court has not adopted the course of directing the trial of an action; he has stated that to be the result of his experience. I certainly am very reluctant to try my own memory against that, but I should have supposed that there were instances in which that had been done. It is not the right of parties in every case to have an action tried in a court of law, it is a question of convenience, and the court is to exercise a fair discretion. I have no doubt whatever of the competency of this court to grant an injunction *simpliciter*. Neither had Lord Cottenham any doubt of it. But the question is, whether, when there is an opportunity for carrying the matter further, it is not, on the whole, a convenient course of proceeding to have it tried before the tribunal which is most proper for the determination of the legal question, and by which the facts can be better investigated than they can here. It is not, therefore, upon the ground of any doubt as to the validity of the patent that I make the order which I am about to make; but it is because the nature of the case entitles the defendant to a further investigation in one form or other, and the most convenient and most effective mode appears to me to be that which has been mentioned, namely, by bringing an action in a court of law. Notwithstanding, therefore, the very forcible arguments I have heard upon this subject, I think I must in this case, as has been done in so many other cases, direct the plaintiff to bring an action to try this right, the injunction being granted in the terms of the notice of motion.

in any quantity in the British Colonies, particularly in Ceylon, A. D. 1843. where the British Government from 1813 to 1833 made great exertions to establish the trade in cocoa nut oil as an export trade. The attempt, however, failed, from the inutility of the oil in England, it being unable to be burnt under ordinary circumstances, and was practically useless, until the invention of Mr. Soames, by which it became an article of great utility. The petition then stated various circumstances connected with the progress of the invention, and the assignment of the patent, and the difficulties with which the assignees had to contend, arising from the following circumstances—a great scarcity in the supply of cocoa nut oil from the demand for the purposes of Soames's invention, and the adoption of the oil to mix with tallow in the manufacture of candles, and the discontinuance of the Government mill and establishment at Ceylon, the result of which was, a great scarcity in the article and a rise in price—the petitioners being compelled to establish agencies at Ceylon, and on the Malabar coast, for the regular exportation of oil to England, and to erect mills, and plant cocoa nut trees for the same purpose, in all which undertakings great difficulties were experienced—the failure of their expectations as to the supply of oil at a moderate price. The petition further stated, that the invention of Mr. Soames had led to the invention of the composite candle, an article in very great demand by the public. That a capital of upwards of £100,000 was embarked in the working of the patent, but the profits had been less than the ordinary returns on manufacturing capital. The petition, in conclusion, stated as specific grounds for extension of the patent, the introduction of a new trade and manufacture, namely vegetable candles, and the establishment of the importation of cocoa nut oil as a trade of great value, both to the country and the colonies (b); the utility and importance of the consequent improvement in candles to the public at large; the want of remuneration and the difficulties in which the assignees had been involved from circumstances which could not be foreseen, and over which they had no control.

Sir Thomas *Wilde*, M. D. *Hill*, *Rotch*, and *Webster*, in support of the petition; Sir W. *Follett*, S. G. and M. *Smith* opposed on behalf of the trade; *Erle* and *Swann* on behalf of Mr. Tindal.

The usual formal and other proofs in support of the petition *The Objections.* having been given, the following objections to the extension of the term were stated as intended to be relied on. That long before Soames's invention it was well known that all fats,

(b) It appeared from the parliamentary papers, that on the average of fifteen years, prior to 1824, the quantity of cocoa nut oil imported was 102 tons annually, at £30 per ton; during the next

six years, the average was 344 tons, at £35 a ton; and during the next eight years, up to the end of 1842, the annual average was 1743 tons, at £38 a ton.

*In the Privy
Council.*

and most fixed oils, whether animal or vegetable, including cocoa nut oil, could be separated by means of pressure, at various temperatures, into two distinct substances, called stearine and elaine; that this well-known property, and the processes of effecting the separation, were described in well-known chemical works, and in the specifications of various patents; that the process of mechanical pressure had been extensively applied in this country to spermaceti and also to tallow, before the date of Soames's patent; that under these circumstances the specification claimed what was not new; that there was little merit in Soames's invention, and that the candles of the stearine of the cocoa nut oil alone had but little sale, and were not suited to general use in this country, and in order to produce a marketable article it was necessary that the stearine should be mixed with the stearic acid of tallow, as in the composite candle; that the trade would be greatly prejudiced by the extension of the patent, since it would prevent them from making the composite candle, which would in all probability altogether supersede the mould candle.

Lord BROUGHAM (to Sir Thomas *Wilde*): Of course we cannot take an admission from you, because we are here to protect the public, and are to satisfy ourselves as to your claim; but it appears to me, from the experiments of Chevreul and Braconnot, and the scientific works Mr. Erle has referred to—the *Annales de Chimie*, Thompson's *Chemistry*, the *Annals of Philosophy*, and Murray's *Chemistry*, to say nothing of the patents, which I do not think much of; but those scientific works seem to indicate, that prior to your patent, there was a very small step in invention to make, namely, in the separation of the liquid from the solid part of a substance, consisting of two bodies combined mechanically and not chemically; if combined chemically, of course, no pressure could separate them; but combined mechanically—applying pressure to that, was but a small step to make from what was known before. Now you admit, I suppose (which is the only thing wanting to prove their case), the books which bear date in 1815, 1816, 1819, and 1832, to have been published at those dates? [Sir Thomas *Wilde*: Oh, yes!] (To Mr. *Erle*;) Now, on the other hand, I do not exactly see how you could strengthen your case by calling people to say, they knew those things, because, if they were in a book, they were accessible to the patentee, and though it is very likely the patentee might know nothing of them, it goes to the point of public benefit. The public had the benefit of those things before, and consequently, the benefit the public has got from the patent is merely the difference between the matter which was known before the patent, and that which is known now, though it is clear that in fact the patentee has been at a great outlay of money in carrying it into effect.

LORD CAMPBELL: I should say, sitting here, if it had been A.D. 1843. published in a foreign journal, considering whether the patent should be prolonged, I should be influenced by what I saw published in a foreign journal, without inquiring whether it was known in England; though when sitting in a court of justice, and considering the validity of the patent, I should require that it should be known in England.

LORD BROUGHAM: The merit of an importer is less than of an inventor. We are now sitting judicially, and it is an argument against the patent, that it was imported and not invented. I do not say it takes away the merit, but it makes it much smaller. Is it worth your while to give evidence to strengthen that point? He may have had all the merit in the world; he may have invented the mariner's compass, not knowing it was known before, but still the public benefit is reduced very much if it was known before.

LORD CAMPBELL: The strength of your case seems to be this. That before this patent of Mr. Soames was taken out, not only was the distinction known between stearine and elaine with reference to animal oils but with reference to vegetable oils, and it is the overcoming certain difficulties in the separating of them which Mr. Soames takes out his patent for.

LORD BROUGHAM: Then the extracts you have read from those scientific works, and the specifications of the three patents, may be taken as put in.

Sir Thomas *Wilde*, in reply. However small the step, it is that which has made the whole difference between a worthless and most valuable commodity; the merit of the inventor cannot be tested by the apparent change, the result and its consequences must be looked to. The public have obtained a valuable article in a cheap and good candle; cocoa nut oil, the produce of our own colonies, has become a permanent article of trade. The assignees have risked an enormous capital, upon which they have not received fair or ordinary returns. The present case is precisely similar to those in which, from the importance of the result, and the inadequacy of the remuneration to those who have brought about the result, the legislature has granted an extension of the term of the letters patent (c).

LORD BROUGHAM: If this case were to be disposed of upon the ground which in arguing such cases has sometimes been assumed to be the fit one, that there must not only be merit and benefit to the public, and (which is essential) a want of sufficient remuneration in the course of using the patent, but that, moreover, the case is to be tried here as on a bill in parliament introduced to prolong the patent; then, I apprehend, there can

(c) See the cases, ante 40.

In the Privy Council.

The petition for an extension is not to be tried in the same manner as an application to parliament.

really be no doubt whatever that in this case no bill would ever have passed through the two houses of parliament; but their lordships have always considered that it was with the view of affording a better remedy, not only cheaper and easier, but better in this respect, that there might be cases which never would have prevailed on the legislature to make a new personal law prolonging a monopoly, which, nevertheless, might seem meritorious enough in respect of the individual, beneficial enough in respect of the public, and deficient enough in remuneration, to justify interference, which, nevertheless, had they been presented in the form of a petition to parliament, would have failed to procure an act.

Proceeding therefore upon this ground, that it is not necessary to show there is case enough for an act of parliament, their lordships are of opinion, that in this case there may be sufficient ground for granting a very moderate extension of the term. Clear proof has been given of some moderate benefit to the public, and of a step having been made by the patentee; that, though previous to his invention of the process, or his application of the ordinary process, viz. mechanical pressure—which is no more a peculiar process than mixing, or any other chemical process known at all times, to all persons, and in all operations—it had been known that vegetable as well as animal oils consisted of two parts, a solid and a fluid, mechanically combined, capable therefore of being separated by mechanical pressure; yet as there never had been any application of mechanical pressure for the purpose of separating the cocoa nut oil into two parts, which being separated, are found exceedingly useful; the oily part useful, and particularly the solid part, very useful in making candles; it is fit to consider that the person who made this step—no very great step, yet still a step to some extent, was not sure before hand, that he would find the solid part separable by pressure; he was not quite sure, because it had been done with other things, but he might very well calculate that it would be so—he was not at all sure that he would find the thing so separated, was applicable to common and to public use, viz. to the purpose of making a good burning candle.

The fact of a further improvement having been made is an argument in favour of an extension.

Well, then, another improvement was made by him after he discovered the process of separating the one from the other—that when separated, a candle might be usefully made of the solid part. There was then made, it appears, another improvement, viz. the composite candle which is now chiefly in use. Though that is chiefly in use and the other not, that affords no argument against the invention or against the benefit the public may derive therefrom, because it is only carrying the invention further, though they do not patent it, and do not claim the exclusive benefit of it; it is really carrying further the original process. Then it appears clearly it has been no benefit; it has

rather been a *damnosa hereditas*. It appears that £800 was A. D. 1843. paid in the first instance, and that they have rather lost than gained—that they have lost somewhere about £500 or £600. It appears they have rather speculated lately; they have spent £3000 or £4000 within the last two or three years. Perhaps they had no right to calculate upon that being restored. They have incurred a great outlay of money, perhaps not a very prudent one under those circumstances. Then it is said, there has been an obstacle in the want of cocoa nut oil. It does not appear there was any change to make that cocoa nut oil less easy to be obtained than it was before; on the contrary, the whole average importation is about seventeen times as much now as it was originally. They could hardly therefore have been disappointed in that, because they could hardly have calculated, and they had no right to calculate, and therefore no right to complain if they were disappointed, upon the supply of cocoa nut oil ever rising in a greater proportion than 17 to 1. Nevertheless, they have been spirited and active persons in this matter, and the public has gained something from their spirit and activity, and from what they have expended; and their lordships under these circumstances are of opinion, that they will do well in giving the benefit of a very moderate extension of this patent right, but that moderate it must be, in respect of the circumstances which I have already stated—the very small step which was made, and the proportionate small benefit which the public may be said to have gained.

It is very fit their lordships should guard against the inference being drawn, from the small amount of any step made in improvement, that they are disposed to undervalue that in importance; if a new process is invented, if new machinery is invented, if a new principle is found out and applied so as to become the subject of a patent right, embodied in a manufacture, then, however small it may be in advance of the state of science or of art previous to the period of that step being made, that is no reason whatever for undervaluing the merits of the person who makes a discovery in science or an invention in art, because the whole history of science, from the greatest discoveries down to the most unimportant—from the discovery of the system of gravitation itself, and the fractional calculus itself, down to the most trifling step that ever has been made—is one continued illustration of the slow progress by which the human mind makes its advance in discovery; it is hardly perceptible, so little has been made by any one step in advance of the former state of things, because generally you find that just before there was something very nearly the same thing discovered or invented. Therefore it is no argument whatever in general, if there is a new principle, or a novel invention—a new process, for instance. But that is not the case here, and therefore it is,

An inference against the merit of the invention from the smallness of the step, must be carefully guarded against.

*In the Privy
Council.*

that being not at all the case here, but only a new application, which might very easily suggest itself to any body; a new application of a well-known simple process, which had been employed with respect to other substances, a new application to this known substance of cocoa nut oil. Therefore, the general observation fails altogether here, and their lordships are perfectly justified, without any thing unfair towards the party, at the time they are granting an extension of the term, in taking into consideration how small that step has been. Their lordships being of opinion therefore, upon the whole, that a moderate extension ought to be given, they will humbly recommend her majesty, under the powers of the act, to grant an extension of three years, from the expiration of the term of fourteen years already enjoyed (*d*).

WRIGHT'S PATENT.

July 5, 1843. *Cor. Lord Brougham; Lord Campbell; Dr. Lushington; and Vice-Chancellor Knight Bruce.*

This was an application by the patentee for an extension of letters patent, granted the 26th of January, 1830, to Samuel Wright, for "a manufacture of ornamental tiles, bricks, and quarries, for floors, pavements, and other purposes."

M. D. Hill, and Webster, for the petitioner; Sir F. Pollock, A.G., for the crown.

The subject of this invention was described by the witnesses as the encaustic tile, a description of which was well known in the middle ages, but the art of its manufacture had been lost. The patentee having failed altogether in introducing the invention, in 1838 transferred his model, and granted a license to a Mr. Minter, reserving to himself a royalty of 2*s.* per square yard. Mr. Minter immediately reduced the price from 42*s.* to 18*s.* the square yard, and undertook the contract for the Temple Church at 16*s.* 6*d.* a square yard, as a means of bringing the pavement into notice, at a loss on that contract of £250: the patentee had expended between £700 and £800, and received no return, except about £100 royalty from Mr. Minter.

Sir F. Pollock, A. G., informed their lordships that he saw no objection on the part of the public to the extension asked for being granted.

(*d*) The new letters patent were granted (sealed 24th of Aug. 1843,) to William Wilson, John Studholme Brownrigg, John Cockerill, and Sir George

Gerard de Hochpied Larpent, Bart., for the term of three years, from the 9th day of September.

Lord BROUGHAM: Their lordships think, that regard being *Judgment.* had to the benefit which the public are likely to receive from this manufacture going on, and regard being had also to the peculiar circumstances of the Temple contract being the first time it has come into notice, there ought to be an extension for the term of seven years.

MORGAN'S PATENT.

Cor. The Lord President; Lord Brougham; Lord Campbell; July 15, 1843.
and Dr. Lushington.

This was an application by the patentee, in conjunction with the assignees, of letters patent granted the 9th of September, 1839, to Thomas Morgan, for "a new method of manufacturing or preparing iron plates, or black plates for tinning."

Sir W. W. Follett, S. G., and Webster, in support of the petition; and Sir F. Pollock, A. G., for the crown.

It appeared in evidence, that according to the old process of manufacturing tin plates, the iron or black plate, preparatory to tinning, was scaled, that is, the oxydated surface removed, by manual operation, after being placed in a furnace; this was a wasteful mode, and the whole of the scale was not perfectly removed; the plate after being scaled was cold-rolled, for the purpose of giving it a smooth surface, and then cleaned with sulphuric acid. According to Mr. Morgan's invention, the plate was prepared for tinning by pickling in sulphuric acid, the effect of which was to remove all the scale. This was a more effectual and cheaper mode, and the tinned plate has an improved appearance. The saving effected was estimated at from 10*d.* to 1*s.* on a box of tin plates, value about 20*s.* It appeared that the inventor was a working man at £2 a week, and having been unsuccessful in his first attempts to get the invention adopted by a large manufacturer, with whom he had entered into an arrangement, nothing was done with the invention until 1840, when he sold the patent to Messrs. Lewis, for £200, reserving to himself a right to use the invention at works in which he was a partner, and at which about 150 boxes a week were made. It appeared that the Messrs. Lewis had made from 15,000 to 18,000 boxes a year during the last three years, and received £300 a year for licenses.

Lord BROUGHAM: When applications are made to their *Judgment.* lordships for the extension of a patent term, that is to say, of a monopoly, under letters patent by assignees, to whom the interest of the patentee has been parted with, and in whom it is

In the Privy Council.

The interest of the inventor is medially consulted through the assignee.

vested, their lordships have always been used to consider, that by taking into their view and favourably listening to the application of the assignee, they are, though not directly, yet medially and consequentially, as it were, giving a benefit to the inventor, because if the assignee is not remunerated at all, it might be said that the chance of the patentee of making an advantageous conveyance to the assignee, would be materially diminished, and consequently, his interest damnified. For this reason, consideration has been given to the claims of the assignee who has an interest in the patent.

Their lordships applying this principle to the present case, would look at the situation of the assignees, and it appears from the evidence that they have made a profit in two respects; first, in the saving effected upon their 15,000 to 18,000 boxes, of somewhere about 10*d.* a box, and the small amount of sulphate of iron that is made, being somewhere about £60, making altogether about £700 per annum for three years; and secondly, the amount of £300, or thereabouts, for licenses; no evidence being given of that, but it being suggested that it amounts to about £300. Taking it at that, it would make the remuneration that they have had amount to £3000, that is to say, £1000 a year during three years. It appears, therefore, to their lordships, in considering whether any additional term should be granted to them, that the amount they have made is a very reasonable amount for any thing they have a right to expect. So much then as to the claim of the assignees medially to the interest of the patentee.

Now, as to the patentee himself, who really appears nominally only a party to this application. The patentee has made by his bargain with the assignees £200,—£100 of which has been paid, and the other £100 is yet to be paid; and it is said, that he makes about £7 a week in partnership with two others, leaving him a profit of about £2 a week.

Their lordships do not consider that this invention is entirely without merit, but it seems of a very moderate degree, being the substitution of the chemical process of washing with sulphuric acid for the scaling process by fire, making a cheaper and somewhat better article. It is not without merit, at the same time it cannot be said to be of very great merit—merit which could lead their lordships to strain much in favour of the inventor.

Their lordships upon the whole are of opinion, that if they were to grant an extension of the term in this case, either with a view to the inventor himself, or to his assignees medially towards him, they hardly could ever resist any future application that might be made. It is any thing rather than a matter of course that an application of this sort should be granted. Formerly it was most difficult to obtain an extension of a

patent. An act of parliament was very seldom indeed obtained A. D. 1843. by an inventor, great as his merits might be, and small as his gains might have been. It is by no means the course of their lordships—as has been frequently said, and by myself lately, in giving the judgment of the court in a recent case—it is by no means their course to put themselves precisely in the situation of the legislature, and never to grant an extension in a case where an act of parliament could not have been obtained. At the same time there are some limits to this. They are to look to a certain degree at the position in which they are placed, and to consider that they here represent the legislature, and that they are invested with somewhat similar powers of discretion to those exercised formerly by the whole three branches of parliament. And therefore, they by no means intend to have it understood (as has been repeatedly said in these cases), that it is any thing like a matter of course, that upon a case being produced of small merit, and proportionably small consequence, especially in the circumstances of its being the assignee that makes the application, that it is any thing like a matter of course, that they shall grant the application; and upon the whole, their lordships see no reason for granting this application for an extension.

Other Cases.—The following cases of application to the Judicial Committee of the Privy Council, for an extension of the term of letters patent have occurred:—

BATE'S PATENT.

This was an application (9th of March, 1836,) by the patentee for an extension of the term of letters patent, granted 21st of March, 1822, to Robert Bate, for "certain improvements on hydrometers and saccharometers."

The petition stated the expenditure of a large sum of money in experiments, carried on during many years, upon the expansion of liquids at different temperatures. That the experiments upon the infusion of malt, or wort, alone amounted to 346, the results of many of which were calculated to a unit in the fifth place of decimals. That the improved instruments were essential to the Excise, and at the time of the petitioner's invention five different instruments were employed for the purposes to which the new instrument is applicable. That the petitioner's instrument was more correct, and would supersede the old instruments, but could only be introduced generally by the assistance of the Commissioners of Excise, which assistance the petitioner was on the point of obtaining. Application granted.

MACINTOSH'S PATENT.

This was an application in respect of the several letters patent, granted in 1823, to Charles Macintosh, for "rendering certain substances impervious to water and air." (See ante 582, n. b.)

The petition was lodged 16th January, 1836, and on the usual application being made shortly afterwards for an early day to be fixed for the hearing, their lordships intimated, that as the English patent did not expire till the 17th of June, 1837, the profits accruing in the mean time might materially affect the question of extension, and the application had better stand over for the present.

(Feb. 1837.) W. H. Watson renewed the application for a day to be fixed for the hearing, and suggested to the committee the difficulty in which the postponement of the former application had placed the petitioner as to the notices on the caveats of the opposing parties; whether the old notices would be sufficient.

Hindmarsh objected that the old notices could not be sufficient, as fresh parties had become interested in opposing the patent since the date of the previous application. Special leave had been given to one of these parties to enter a caveat.

Their lordships declined giving any opinion on the question of the notices, but intimated that the best plan would be to fix as late a day as convenient for the hearing, and the petitioner to act as he should be advised as to proceeding on the old notices or giving fresh notices.

The hearing was fixed for the 22d day of April. (June 24, 1837.) The petitioner having abandoned the above petition, *Corrie*, on an affidavit of facts, applied on behalf of one of the opposing parties for the costs which he had been occasioned in the matter of the above petition.

Their lordships granted the application for costs.

BODMER'S PATENT.

This was an application to extend the several terms of the letters patent granted to J. G. Bodmer, for "certain improvements in machinery for cleaning, carding, drawing, roving, and spinning of cotton and wool;" the letters patent for Scotland, Ireland, and England, bore date the 18th of August, the 7th and 14th of October, 1824, respectively.

The petition was duly presented (31st of May, 1838), and notices of intention to apply on the 26th of June, for a day to be fixed for the hearing, duly given by advertisement. On that day two caveats were entered, under which the parties being respectively entitled to four weeks' notice, the ordinary sitting of the Judicial Committee would have terminated before the petition could be heard, and the letters patent would have expired before the sittings could be renewed after Michaelmas Term. Under these circumstances their lordships appointed the 17th of August, for the hearing, but a sufficient number of members could not be obtained to form a council. The 29th day of November was then appointed for the hearing.

(Nov. 29, 1838.) The above petition came on for the hearing, the caveats having been withdrawn.

Sir J. Campbell, A.G., on the part of the crown, objected that their lordships had not power to entertain the application after the letters patent had expired, the statute 5 & 6 W. 4, c. 83, s. 4, requiring that the application should be prosecuted with effect before the expiration of the term originally granted by the letters patent.

Their lordships were of opinion that the above objection was fatal; that the words "prosecuted with effect," meant that something more than the application by presenting the petition, and obtaining a day to be fixed for the hearing, must have taken place to satisfy the proviso of the statute.

It may be suggested, whether the terms "prosecuted with effect" in the statute, do not mean, or would not be satisfied by, obtaining the report of the Judicial Committee of the Privy Council.

(May 20, 1840.) The act 2 & 3 Vict. c. 67, having been passed to obviate the hardship of the above case, the application for an extension of the terms of the above patents was renewed. Proof having been given of the insertion of the advertisements, as in the case of an application under the statute 5 & 6 W. 4, c. 83, and of the merit of the invention, and that no remuneration had been received till within the last three years, and that only of a moderate kind, their lordships recommended the extension of the term for seven years.

The new letters patent were accordingly granted, bearing date the 18th of July, 1840.

QUARRILL'S PATENT.

This was an application (June 30, 1840) by the assignee, under an assignment from the executrix, the widow of the patentee of letters patent, granted the 20th of December, 1826, to Thomas Quarrill, for "improvements in the manufacture of lamps."

It appeared that between 600 and 700 lamps had been sold during Mr. Quarrill's life-time, at a profit of about 10s. a lamp, the selling price being about 30s.; that the petitioner had purchased the stock in trade at a fair value, and had been no loser by the transaction.

Their lordships refused the application. Their lordships also intimated, that with regard to the question of remuneration, the actual expenses must be shown; that it was not sufficient to state there had been neither loss nor profit.

WOODCROFT'S PATENT.

This was an application (Feb. 11, 1841) for an extension of the terms of the letters patent, granted (A.D. 1827-8) to Bennet Woodcroft, for "certain processes and apparatus for printing and preparing for manufacture yarns of linen, cotton, silk, woollen, or any other fibrous material."

The subject of the above patent was printing yarns, which, after they were printed, were to be woven into cloth, the yarns so printed being the warp. The cloth made of such yarns had a peculiarly clouded or shaded appearance, and the above invention gave rise to the clouded or chemie silks and fabrics, recently brought to so much perfection (see account of these fabrics by G. T. Kemp, Esq., in the 54th volume of the Transactions of the Society of Arts). It appeared that during the first four years printed cotton yarns, and goods manufactured from them, were in great demand, and that a considerable profit (£7000) was realized, but that from the removal of the duty on printed calicos (the printed yarns not being subject to duty) and other causes, a large capital invested in working the patent ceased to be profitable, and the invention to be little used, so much so, that in 1835 the patent right, on a certain valuation of partnership effects, was not estimated at more than £600. In 1839, in consequence of the importation of certain French silks, manufactured of printed yarns, the invention under a somewhat improved form became very valuable, and led to the introduction of the new class of silk goods above referred to. It appeared that the method described in the specification of the above patent answered perfectly well for simple patterns, but that it failed for the more elaborate patterns and the brighter colours, which required the yarns to be washed after printing.

The application was opposed on the ground (among others), that the invention in its present improved form was introduced from France in 1839 by other persons than the petitioner.

Application refused.

INDEX.

ABANDONMENT.

the abandonment or uselessness of a
of the invention not described or
tested as essential, will not vitiate the
as patent. *Lewis v. Marling*, 490.

where before plaintiff's invention
kind of brush had been used in
ing the cloth, and the specification
ibed a brush for that purpose, but
is ascertained not to be necessary to
uch brush in shearing according to
plaintiff's invention. *Ibid.* 490, 495.

the abandonment of a mode raises a
g presumption, either that it failed
as merely an experiment. *Ibid.*
n. x.

an alleged invention be not pursued
presumption is, that it was not made
useful form. *Minter v. Mower*, 139.

the abandonment is an important
tion for determining, whether what
place was experiment or perfected
complete invention. *The Househill
pany v. Neilson*, 692, n. p.

the abandonment is almost decisive,
howing that an invention was not
lete and perfected, though in point
w it is immaterial. *Ibid.*

must rest either on experiment or
tion; if the former, the continuance
to the time of the patent will not
idate the patent; if the latter, the
ntion will be good, and the aban-
ent will not affect it. *Ibid.*

the test is, was the invention per-
d or not; was it invention or no
ntion? *Ibid.* 704.

See EXPERIMENT.

the notorious use of an invention,
gh abandoned, will vitiate subse-
it patent. *Ibid.* 710 & 716.

emble, That the prior use of an in-
ion, abandoned and wholly lost sight

of by the public, will not vitiate subse-
quent letters patent for the same inven-
tion. *Ibid.* 717.

ACCOUNT.

An account decreed to be taken of the
profits derived from the piratical use of
an invention. *Crossley v. The Derby
Gas Company*, 119.

The defendant ordered to pay money
due up to a certain period into court, and
to keep an account of moneys subse-
quently due. *Neilson v. Fothergill*, 290.

Ample justice may be done to the
plaintiff without prejudice to the de-
fendant, by an account of all engines
made and sold. *Morgan v. Seaward*,
168.

See INJUNCTION.

ACTS OF PARLIAMENT.

Letters patent extended by act of
parliament, 37 & 40.

See EXTENSION.

ACTION AT LAW.

A party against whom an injunction
has been granted will be permitted to
have the validity of the patent tried at
law. *Russell v. Barnsley*, 473.

The pendency of one action to try the
validity of a patent no ground for con-
tinuing an injunction, and refusing to
permit another defendant to have the
right also tried. *Ibid.*

It is not a matter of right that a party should have an action tried in a court of law, but of convenience. *Wilson v. Tindal*, 730, n.

The court refused to enlarge a rule calling on a plaintiff to show cause why a nonsuit should not be entered so as to allow the trial of a *sci. fa.* to take precedence. *Haworth v. Hardcastle*, 486, n. n.

A plaintiff has a strict right to go on in his action to judgment; the repeal of the letters patent by *sci. fa.* will not of necessity preclude the plaintiff from judgment in the action. *Ibid.*

ADDITION.

An addition to an existing machine is the subject of a patent. *Morris v. Bransom*, 51, & 51 n.

But the specification must distinctly confine the invention to such addition. *Ibid.* 51, n.

And such addition may be on the subject of a subsisting patent. *Fox, ex parte*, 431, 51, n.; *Crane v. Price*, 412.

See IMPROVEMENT—SUBJECT-MATTER.

AMENDMENT.

At Common Law.

The authority of the Master of the Rolls is limited to correcting errors of mistake. *In re Sharp's patent*, 646.

Instances of amendment and records amended, 647, n. l.

A clerical error having been committed, in the queen's warrant for granting letters patent, by a clerk in the Secretary of State's office, and having been copied into the queen's bill, the queen's signet bill, the privy seal bill, and the letters patent and enrolment, and having been corrected by her Majesty's command in the queen's warrant and the queen's bill, the Master of the Rolls, on the petition of the patentee, to which the Solicitor General had given his consent, ordered the proper officer from the privy seal office to be at liberty to amend the privy seal bill, which was in his lordship's custody, and upon that being done, he ordered the enrolment to be amended. *Re Nickels' patent, cor. M. R.*, 650.

The letters patent must be altered first, and then there must be authority to alter the enrolment. *Re Nickels' patent, cor. L. C.*, 658.

An enrolment cannot be permitted to differ from the letters patent. *Ibid.* 661.

An amended privy seal bill is no authority to the M. R. *Ibid.* 659.

The statute permitting the enrolment to be given in evidence instead of the patent, an amendment causing the former to differ from the latter is irregular. *Ibid.* 661.

An order to that effect discharged, and the enrolment restored. *Ibid.* 664.

The letters patent will only be amended and resealed on a proper privy seal bill being brought to the Chancellor. *Ibid.* 663.

Letters patent amended, and then resealed. *Ibid.* 664, & 664, n. l.

By Statute.

Where a patent is originally voidable, but amended under 5 & 6 W. 4, c. 83, by filing a disclaimer of part of the invention, that act has not a retrospective operation so as to make a party liable for the infringement of the patent prior to the time of entering such disclaimer. *Perry v. Skinner*, 250.

APPLICATION.

The application of plates of metal to secure buildings, &c., from fire, the subject of letters patent. *Hartley's patent*, 54.

Also the application of detonating powder for giving fire to artillery. *Forsyth's patent*, 95.

Also the application of gas to singeing the superfluous fibres of lace and similar fabrics. *Hall's patent*, 97.

Also the application of hot water or steam, of a hot cylinder, of bituminous schistus, for effecting improvements in the respective manufactures of cloth, paper, and sugar, 97, n.; *Crompton v. Ibbotson*, 83; *Derosne's patent*, 152.

The use of known things, and acting with them in a known manner, producing results or effects already known in a more economical or beneficial manner, the subject of letters patent. *Crane v. Price*, 409.

As, the substitution of a tube for a ring. *Huddart v. Grimshaw*, 95.

The application or use of an article, as a wheel, for a new object, as to run on a railway, is not the subject of letters patent. *Losh v. Hague*, 208.

Semble, the application of any article or substance to a new purpose, so as to result in a new manufacture, is the subject of letters patent. *Ibid.* 208, n. f.

See SUBJECT-MATTER.

APPRENTICES.

Grantee of exclusive privileges required to take and teach apprentices during the last seven years of his term. *Buck's* invention, 35.

ARRANGEMENT.

A particular arrangement or combination of known things, the subject of letters patent. *Cornish v. Keene*, 517; *Carpenter v. Smith*, 532-3.

See COMBINATION & SUBJECT-MATTER.

An arrangement of float-boards according to a certain rule or law in the construction of paddle-wheels. *Galloway's* patent, 521.

ASSIGNEE.

In an action by an assignee for an infringement, an allegation that the patentee duly assigned his interest to the plaintiff, sufficient after verdict. *Cornish v. Keene*, 501, n. a.

In an action by the assignee of letters patent against the grantee for an infringement, the latter is estopped from denying that he had any title to convey. *Oldham v. Langmead*, 291.

In an action by the assignees of letters patent, on a covenant in articles of agreement, the defendant is not precluded from denying the novelty of the invention, there being no recital in the deed to that effect by which he may be estopped. *Hayne v. Maltby*, 291.

See ESTOPPEL.

The legal interests of an assignee and licensee very different. *Protheroe v. May*, 417.

Assignment of a share in letters patent, may constitute a partnership. *Ibid.* 417, n.

An assignee of letters patent, in which there had been a disclaimer by a party not possessing the entire interest, may maintain an action for infringement. *Spilsbury v. Clough*, 255.

Semble, That the grantee, though having parted with his whole interest, and not the assignee, is the proper party to make the disclaimer. *Ibid.* 258.

The assignee is the party to whom the new letters patent, in case of an extension under the statute, should be granted. *Re Southworth's* patent, 487.

The assignee is taken to represent the whole merit of the patentee on application for an extension. *Re Galloway's* patent, 726, and *Morgan's* patent, 738.

BILL.

Amendment of without prejudice to an injunction. *Russell v. Cowley*, 471, n. c.

CAVEAT AT THE GREAT SEAL.

Caveat may be entered with the Lord Chancellor to withhold the great seal from letters patent; 430, n. c.; *ex parte* Henson, 432.

The Chancellor refused to withhold the great seal from a patent, on the presumption that the subject of it was borrowed from an existing patent. *Ex parte* Fox, 431.

The Chancellor refused to seal letters patent which allowed fifteen months for enrolling the specification. *Re Lacy's* patent, 431.

A party alleging the invention, for which a patent arrived at the great seal, to have been obtained from himself by a breach of confidence, has a right to be heard on a caveat. *Ex parte* Henson, 432.

Matter of petition referred to the Attorney General in aid of the Chancellor. *Ibid.* 432.

On petition to the Lord Chancellor to seal letters patent against which a caveat

had been entered at the great seal, it was referred to the Attorney General to report whether the letters patent should issue. *Cutler's patent*, 418.

The Lord Chancellor has authority to withhold the great seal if he sees fit; the reference to the Attorney General under the circumstances of the case is for the information of the Chancellor. *Ibid.* 424.

CERTIFICATE.

The defendant having pleaded, denying the novelty of the invention, the validity of the patent may be considered as having come in question so as to entitle the plaintiff to a certificate to that effect under the 3d section of the statute 5 & 6 W. 4, c. 83. *Gillett v. Wilby*, 270.

An action on the case for the infringement of a patent is within the operation of 3 & 4 Vict. c. 24, s. 2; and notwithstanding the provisions of the statute 5 & 6 W. 4, c. 83, s. 3, the plaintiff recovering only nominal damages, cannot have his full costs or treble costs without a certificate under the former act. After taxation the judge has no power to grant such certificate. *Gillett v. Green*, 271.

The certificate under 5 & 6 W. 4, c. 83, s. 6, should have reference to the notice of objections, and not to the issues. *Losh v. Hague*, 209.

See COSTS.

CLAIM.

If the specification seek to cover more than the patentee is strictly entitled to, the patent is rendered ineffectual even to the extent to which he would otherwise be fairly entitled. *Hill v. Thompson*, 237.

As where the patent claims generally the mixing of cotton and silk thread, and not any particular mode of mixing it. *R. v. Else*, 76.

As where the invention consists in the application or addition of a pipe to an old stove, but the specification extends to the stove also. *Williams v. Brodie*, 75.

Or, where the patent claims a general principle or mode which is old, not the particular means for carrying out such principle or mode. *R. v. Cutler*, 71.

As where the specification claims the application of a self-adjusting leverage to the back and seat of a chair, it appearing that had been so applied before, though in such a manner as to be incapable of acting by reason of its being encumbered with other machinery. *Minter v. Mower*, 142.

Semble, That a claim for an improvement on such application would have been good. *Ibid.*

It is not sufficient that there be described in the specification an invention which is new, or might support a patent, if that be not distinctly claimed as the invention. *Sanders v. Aston*, 75.

It is not sufficient that a part of the invention be very ingenious and new, if that be not claimed. *Bramah v. Hardcastle*, 76.

Semble, A claim to carrying out a principle in any way is a claim to the principle itself. *Neilson v. Harford*, 355.

See SPECIFICATION.

COLONIES.

The colonies are part of the realm, and *semble*, that the prior public user of an invention therein would vitiate subsequent letters patent granted for any part of the realm. *Brown v. Annandale*, 448-9.

COMBINATION.

The combination of a concave and convex lens to make an object-glass, the subject of letters patent. *Dollond's patent*, 43, n.

The particular combination of old materials, elastic and non-elastic thread, the subject of letters patent. *Cornish v. Keene*, 517.

The combined use of anthracite coal and hot blast in the manufacture of iron, the subject of letters patent. *Crane v. Price*, 408.

Any combination leading to a new and a cheaper, or a better article, is the subject of letters patent. *Ibid.* 409.

An improved, or the particular, combination, the subject of letters patent. *Carpenter v. Smith*, 538.

See SUBJECT-MATTER.

CONFIRMATION.

The crown on the recommendation of the Judicial Committee of the Privy Council may grant new letters patent for an invention which has been partially used or known. (Stat. 5 & 6 W. 4, c. 83, s. 2.

There being no evidence of user of part of an invention contained in a published book, letters patent for such invention will be confirmed. *Heurteloup's* patent, 553.

Letters patent will not be confirmed adversely to a prior right. The exercise of the jurisdiction is purely discretionary. Costs of opposition will be given in some cases. *Westrup & Gibbins' patent*, 554.

CONSIDERATION OF GRANT.

The restraining people in one trade that they might employ themselves in another, not a valid consideration. *Case of Monopolies*, 5.

That grantee had undertaken to make small, which was never before made in England, as good as that imported, and to sell the same at such reasonable rates as it was sold at before. *Baker's patents*, 9, 11, 13.

To supply the kingdom as well as before, and at reasonable rates. *Ibid.*

The expense of establishing a new trade a ground for an extension by the legislature. *Lombe's patent*, 38.

The difficulty of establishing a manufacture upon a new principle, a ground of extension by the legislature. *Cookworthy's patent*, 39.

Failure of consideration a ground for avoiding the grant. *R. v. Mussey*, 41.

If the invention be not new, the public have not any consideration for the patent, namely, the knowledge to be de-

rived from the specification. *The Househill Company v. Neilson*, 719.

The consideration for the patent is the specification; if the invention be old, that fails. *Ibid.*

See FAILURE OF CONSIDERATION.

See FALSE SUGGESTION.

CONSTRUCTION.

The patent a bargain between the patentee and the public, to be construed on the principles of good faith. *Neilson v. Harford*, 341.

The letters patent and specification are to be taken as one instrument in enforcing a claim. *Crossley v. Beverley*, 117.

The letters patent and specification constitute one instrument, and are to be interpreted according to the ordinary sense of the terms. *The Househill Company v. Neilson*, 679.

The specification is to be taken in connexion with the letters patent in determining the validity of the title. *Neilson v. Harford*, 312.

The patent is to be read in connexion with the specification, and with a view to support it. *Russell v. Conley*, 470.

The description of the invention is to be taken from the specification, and not from the patent. *Arkwright v. Nightingale*, 60.

The construction of the patent and the extent of the claim is for the court. *Hill v. Thompson*, 237.

The utility of the invention and the intelligibility of the specification are for the jury; but the nature and extent of the claim for the court. *Ibid.*

The meaning of the specification is for the court, the words of art having been interpreted by the jury. *Neilson v. Harford*, 350.

The meaning of the specification is matter of law, the judge having been informed of the facts. *Ibid.* 351.

The construction of letters patent and specification, except as to terms of art, is for the court. *Derosne v. Fairie*, 156.

Some questions on the specification are for the jury, and others for the court. *Neilson v. Harford*, 367.

The construction of all written instruments is for the court, the meaning of the words and surrounding circumstances having been ascertained by the jury. *Ibid.* 370.

The terms of the specification must be interpreted according to the state of knowledge at the time. *Crossley v. Beverley*, 107.

The terms "other substances" must be understood with reference to substance, *ejusdem generis*, and in use at the time, and which practical men would employ. *Ibid.* 108.

The specification, on its fair construction, excluding the use of a maundril, it will be presumed that the patentee does not claim the use of that instrument. *Russell v. Cowley*, 467.

A patentee to be presumed not to claim things which he must have known to be in use. *Haworth v. Hardcastle*, 484.

The specification should be read so as consistently with the fair import of language to make the claim co-extensive with the actual discovery. *Ibid.* 485.

If a specification describe certain machinery, and omit to claim any particular part, or the combination of parts, the patent must be taken to be for the whole. *Carpenter v. Smith*, 532.

COSTS.

Costs on a caveat with the Chancellor to withhold the great seal from a patent, refused. *Ex parte Fox*, 431.

Costs on a caveat against sealing a patent, given. *Re Cutler's patent*, 430.

The costs of an action permitted by the Court of Chancery must follow the usual rule as to costs of an action at law; though in the case of an action or issue directed the case may be different. *Russell v. Cowley*, 471, n. b.

The defendant, if entitled to a nonsuit, ought not to pay the costs of a new trial. *Derosne v. Fairie*, 160.

The statute (5 & 6 W. 4, c. 83, s. 6) was not intended to render inoperative Reg. G. H. T. 2, W. 4, s. 74, as to the taxation of costs on the issues. *Losh v. Hague*, 209.

The Privy Council will give costs in some cases. *Westrup & Gibbins' patent*,

556; *Downton's patent*, 567; *Macintosh's patent*, 739.

If the damage be under 40s. a certificate under 3 & 4 Vict. c. 24, s. 2, necessary to give the plaintiff his costs. *Gillett v. Green*, 271.

CROWN.

The prerogative of the crown as to grants of letters patent absolutely restrained without reference to the place in respect of which the grant is made. *Per Lord Lyndhurst*, L. C., 454, n.

DAMAGES.

In action for infringement damages generally only nominal. *Lewis v. Marling*, 493, n. z.

Acts done in reliance on former verdict against a patent, evidence in reduction of damages. *Arkwright v. Nightingale*, 61.

To consist of profits and compensation for the infraction of rights. *The Househill Company v. Neilson*, 697.

The plaintiff not entitled to damages in a second action as of right. *Minter v. Mower*, 138.

DATE.

Letters patent bear date the day of sealing, but may be sealed as of the day of the delivery of the warrant into Chancery (16 H. 6, c. 1); 430, n. c.

The date of letters patent cannot be altered. *Ex parte Beck*, 430.

A caveat having been disposed of, the letters patent were sealed as of the date of the delivery of the privy seal bill into Chancery. *Re Cutler's patent*, 430.

The date not altered on letters patent being resealed after an amendment. *Re Nickels' patent*, 663.

DISCLAIMER.

A disclaimer or memorandum of alteration of part of the title or specification may be enrolled, with leave of the law officers of the crown (stat. 5 & 6 W. 4, c. 83, s. 1); 250, n. a.

The disclaimer or memorandum of alteration has not a retrospective effect so as to make a party a wrong-doer by relation. *Perry v. Skinner*, 253.

Semble, If a patent which is voidable be amended by disclaimer, no action can be maintained in respect of an infringement prior to the date of such amendment. *Ibid.* 254.

A grantee of letters patent, though having entirely parted with his interest, may enter a disclaimer. *Spilsbury v. Clough*, 258.

The Master of the Rolls has no jurisdiction to remove from the records of the Court of Chancery a disclaimer or memorandum of alteration. *Re Sharp's patent*, 641.

See MEMORANDUM OF ALTERATION.

ENGLAND.

Since the act of union, England and Scotland must be taken to be one country in support of the validity of letters patent. *Roebuck v. Stirling*, 45; *Brown v. Annandale*, 433.

Evidence of user in England admissible to invalidate a patent for Scotland. *Roebuck v. Stirling*, 46.

An invention being known and publicly practised in England before the date of letters patent for Scotland, the latter are void. *Ibid.* 48.

Previous public use in England will invalidate a patent for Scotland. *Brown v. Annandale*, 434.

England, Scotland, and the Colonies, became one realm by the act of union. *Ibid.* 448.

ENROLMENT.

The enrolment of a disclaimer or memorandum of alteration duly made cannot be expunged from the rolls of the court. *Re Sharp's patent*, 641.

The authority of the Master of the Rolls is limited to correcting clerical errors or errors of mistake. *Ibid.* 646.

An error in the enrolment of the privy seal bill will be amended. *Re Nickels' patent*, 655.

The enrolment is properly of the letters patent, and not of the privy seal bill. *Ibid.* 661.

An enrolment different from the letters patent will not be permitted to continue. *Ibid.* 661.

The letter *w* having been written for *f* in the engrossment of the specification, and the enrolment made therefrom, the Master of the Rolls ordered the latter to be amended. *Re Whitehouse's patent*, 649, *n. m*.

The specification having recited the letters to have been granted in "October" instead of "November," the Master of the Rolls ordered the enrolment to be amended. *Re Rubery's patent*, 649.

The copying clerk, in making the enrolment of the specification, transposed certain numbers of reference to the drawings; the Master of the Rolls ordered the enrolment to be amended. *Re Redmund's patent*, 649.

Clerical errors in enrolments, or errors made by inadvertence, always amended, but under various authorities. *Re Sharp's patent*, 647.

Records amended, 647, *n. l*.

ERRORS.

Amendable at Common Law.

See AMENDMENT AND ENROLMENT.

Amendable by Statute.

See AMENDMENT AND DISCLAIMER.

ESTOPPEL.

A patentee who has conveyed away his interest is estopped in an action of infringement by his assignee from denying his title to convey. *Oldham v. Lungwad*, 291.

In an action of covenant on articles of agreement, which recited that the plaintiffs were assignees of letters patent, the defendant is not estopped from denying the novelty of the invention. *Hayne v. Maltby*, 291.

In an action of covenant on a license deed, reciting that the plaintiff had invented certain improvements, &c., the

defendant is estopped by the recital from denying the novelty of the invention. *Borman v. Taylor*, 293.

See FAILURE OF CONSIDERATION AND LICENSES.

Semble, That a party who has been dealing with a patentee under a contract may stop and compel the patentee to establish his title. *Neilson v. Fothergill*, 290.

EVIDENCE.

Evidence of user in England admissible to show want of novelty in proceedings on Scotch patent. *Roebuck & Garbett's case*, 46.

The only evidence which the plaintiff can give on the issue of novelty is, that of persons who were in the way of hearing of the invention, not having heard of it. *Cornish v. Keene*, 509.

A plaintiff must give some evidence of the sufficiency of the specification if denied. *Turner v. Winter*, 81.

As, the evidence of persons of science and workmen, that they have read the specification and can understand it, and have practised the invention according to it. *Cornish v. Keene*, 503.

And in the absence of contradiction on the part of the defendant, such evidence will be sufficient. *Ibid.*

The defendant must show that persons have been misled by the specification, or incurred expense in attempting to follow it, and were unable to ascertain what was meant. *Ibid.*

The plaintiff can only make a *prima facie* case of novelty by calling persons acquainted with the particular trade and manufacture, to prove that they never heard of any invention similar to the plaintiff's. *Galloway v. Bleaden*, 526.

If a whole class of substances be mentioned as suitable, the plaintiff must show that each and every of them will succeed. *Bickford v. Skewes*, 218.

The letters patent are *prima facie* evidence of the title of the party, and it is for the defendant to impeach their title. *Minter v. Wells*, 129.

In an action for the infringement of a patent, professing to be an improvement

on a former patent, the specification of that former patent must be read. *Lewis v. Davis*, 489.

On an application for extension, the merit and utility of the invention, and the expenses and the profits, must be proved. 560 & 567.

See EXTENSION.

See INFRINGEMENT.

EXPERIMENT.

An experiment found not to answer, and abandoned as useless, will not vitiate a subsequent patent for an invention in which the previous defects are remedied. *Jones v. Pearce*, 124.

A mere experiment or course of experiments, for the purpose of procuring a result which is not brought to completion, but begins and ends in uncertain experiments, will not prevent another person, who is more successful, from obtaining the benefit of his success. *Galloway v. Bleaden*, 525 & 529.

The question is, whether what was done rested in experiment, and unsuccessful experiment, not conducted to its full result, or whether it was a complete discovery of that which forms the subject of the patent? *Ibid.* 526 & 529.

An invention abandoned must be presumed not to have been complete, but to have rested in experiment. *The Househill Company v. Neilson*, 713.

That which is merely experiment can never vitiate a patent; the experiments and patent go on together. *Ibid.* 704, 705.

See ABANDONMENT.

EXTENSION OF TERM.

By Act of Parliament.

The benefit conferred on the public by the employment of the poor, consequent on the importation of a new manufacture, a ground for extension of term by the legislature. *The Lustring patent* (9 & 10 W. 3, c. 43, P.) 37. *Ibid.* 37, n.

The increase of trade and the employment of the poor by the introduction of new inventions from abroad, and the expense incurred and difficulties encountered, a ground of extension of term by the legislature. *Lombe's patent* (5 G. 2, c. 8, P.) 38.

The difficulties of establishing a new manufacture, and insufficiency of the original term to render the invention of public utility and to afford adequate remuneration, a ground for extension of term by the legislature. *Cookworthy's patent*, assigned to *Champion* (15 G. 3, c. 42, P.) 39. *Ibid.* 39, n.

Insufficiency of the original term for the inventor to obtain adequate remuneration for his labour, expense, and time, or for the public to reap the full advantage of the invention in point of utility and economy under special circumstances, a ground of extension. *Liardet's patent*, 52.

Price of commodity made during the extended term to be limited. *Ibid.* 52.

Privileges existing before the date of the letters patent, preserved. *Ibid.* 53.

Objections to original letters patent saved. *Ibid.* 53.

Proviso against transfer to more than five persons, and for a new specification. *Ibid.* 53.

The expenditure in perfecting an invention, and the insufficiency of the ordinary term for rendering the invention of the greatest utility to the public, or for remunerating the inventor, grounds of extension of term for thirty-one years. *Hartley's patent* (17 G. 3, c. 6, P.) 55.

Objections to novelty of invention, saved. *Ibid.* 55.

Use of invention in royal dock-yards without license, saved. *Ibid.* 55, n.

Provisos limiting price, and against transfer to more than five persons. *Ibid.* 55, n.

The superseding an article of importation from abroad by British manufacture, the opposition of the trade, the expenses of litigation, and the inadequacy of the remuneration, grounds for an extension of the term. *Turner's patent* (32 G. 3, c. 73, P.) 84.

Proviso as to the price, and limiting the price, and saving all exceptions, ex-

cepting as to the former patent, except the term. *Ibid.*

By Statute 5 & 6 W. 4, c. 83.

The crown on the recommendation of the Judicial Committee of the Privy Council may prolong the term by granting new letters patent. (Stat. 5 & 6 W. 4, c. 83, s. 4.)

But application for such prolongation must be prosecuted with effect before the expiration of the term of the original letters patent, unless the petition be presented six months before such expiration. (Stat. 2 & 3 Vict. c. 67.)

A strong case of hardship, and as to the utility of the invention, must be made out. *Re Erard's patent*, 559.

A *prima facie* case of the sufficiency of the specification must in general be made out; letters patent clearly bad would not be extended. *Ibid.* 557, n. a.

A large sum of money and much time being expended on experiment to perfect the invention without any return, the patent extended. *Re Bate's patent*, 739.

The invention being very meritorious, the result of a great deal of labour, care, and science, and extremely useful in its effects, and the party having sustained considerable loss, the patent will be extended. *Re Swaine's patent*, 560.

The misfortunes of the patentee and those connected with him, and the nature of the invention as affecting its introduction into use, is to be considered. *Re Southworth's patent, ex parte Haworth*, 487.

The new letters patent must be granted to the party in whom the subsisting patent is legally vested. *Ibid.* 488.

In an application by an assignee the title of the petitioner must be strictly proved, although no notice of intention to dispute the title is contained in the objections. *Re Wright's patent, ex parte Shuttleworth*, 561.

The application for an extension postponed till near the expiration of the patent, where the profits may be considerably increased in the interim. *Re Macintosh's patent*, 739.

Costs of opposition given, the application being abandoned. *Ibid.*

Extension recommended in favour of the parties having the legal estate, with-

out imposing any conditions with reference to the equitable claims of other parties connected with the patentee. *Re Wright's patent, ex parte Shuttleworth*, 562.

Extension of term recommended, the patentee having experienced great opposition from the existing interests, and being a loser by the invention. *Re Stafford's patent*, 563.

The words "prosecuted with effect" of the statute (5 & 6 W. 4, c. 83, s. 4), requires something more to have been done than presenting the petition and opening the case before the expiration of the term of the letters patent. *Re Bodmer's patent*, 740.

Semble, That "prosecuted with effect" means, obtaining the report of the Privy Council. *Ibid.*

Patent extended under the provisions of the statute 2 & 3 Vict. c. 67. *Ibid.*

The merit and utility of the invention, the merit of the petitioner in patronising an ingenious inventor, and liberally expending money to introduce the invention, the amount of profit not being greater than the ordinary profit on capital employed in similar trades, the annoyances, anxiety, and cost of litigation, are several grounds of consideration in recommending the extension of letters patent. *Re Whitehouse's patent, ex parte Russell*, 477.

The extension of term recommended to assignee on his securing an annuity to the inventor during the subsistence of the new letters patent. *Re Whitehouse's patent, ex parte Russell*, 476 & 478.

The invention being meritorious, but from circumstances beyond the control of the patentee not sufficiently appreciated, and unproductive of reward, the extension will be recommended. *Re Kollman's patent*, 565.

Violent resistance and opposition to the introduction of an invention a ground for extending the term of the letters patent. *Re Roberts's patent*, 575.

The fact of the invention not having been brought into use, unless explained, is an objection to the extension of the term. *Re Wright's patent*, 576.

But being explained by the pecuniary difficulties and embarrassments of the patentee, extension recommended. *Ibid.* 576.

The questions to be considered on application for an extension are, the ingenuity of the inventor, the want of capital and means, the utility of the invention, and the sufficiency of the remuneration. *Re Downton's patent*, 567.

The absence of all profit during portion of the term is a ground for extension. Costs will be given where there is no ground for the opposition. *Ibid.* 567.

Letters patent being about to expire the application for an extension will be heard during the pendency of legal proceedings as to the validity of the patent. *Re Kay's patent*, 568.

It is sufficient to establish a *prima facie* case of the validity of a patent on an application for an extension. *Ibid.* 571.

The profits amounting to about £6000 an extension of the term for three years recommended. *Ibid.* 572.

The petitioner having purchased the letters patent and stock in trade at a fair price on the death of the patentee, and sustained no loss, the application for an extension of the term was refused. *Re Quarrill's patent*, 740.

The actual expenses and receipts must be shown; it is not sufficient to show generally that there has been no profit. *Ibid.*

The insufficiency of the usual term to afford remuneration, regard being had to the nature of the invention, is ground for an extension. *Re Jones's patent, ex parte Riddle & Piper*, 579.

Semble, That it is not necessary to show a probable ground for supposing that the petitioners would be remunerated by the extension prayed. *Ibid.*

An invention as described in the specification, having succeeded at first to a limited extent for certain patterns and colours, but being inapplicable for the more elaborate patterns and brighter colours, until rendered so by means of certain improvements introduced from abroad, whereby it had become of great value, an application for the extension of the patent was refused. *Re Woodcroft's patent*, 740.

The fact of an invention when known not getting into general use, is a presumption against its utility. *Re Simister's patent*, 723.

Semble, That negligence on the part of a patentee in restraining infringements is a ground of opposition. *Ibid.*

In an application by an assignee, his title must be strictly proved. *Re Galloway's patent*, 725.

The new letters patent are granted subject to the same objections as the old, and the questions of novelty and utility will not be minutely entered on. *Ibid.*

It is for the benefit of patentees that the assignee should represent the whole merit of the inventor. *Ibid.*

The fact of great improvements having been made on the original invention, affords no objection to the extension of the term. *Ibid.* 727.

The expense of litigation, and the cost of the patents, and the expense of bringing the invention into use, to be deducted in estimating profits. *Ibid.* 729.

A manufacturer's fair profit must be deducted, and distinguished from the profit of the monopoly. *Ibid.* 729.

In considering whether a patent should be extended, a publication contained in a foreign journal may be taken into the account. *Re Soames' patent*, 733.

The merit of the importer is less than that of the inventor. *Ibid.*

The petition for an extension is not to be tried in the same manner as an application to parliament. *Ibid.* 734.

The fact of a further improvement having been made, is an argument in favour of an extension. *Ibid.*

An inference against the merit of the invention from the smallness of the step, must be carefully guarded against. *Ibid.* 735.

The interest of the inventor is mediately consulted through the assignee. *Re Morgan's patent*, 738.

FAILURE OF CONSIDERATION.

If the consideration fails, the letters patent are void. 27, n.

Failure of execution a failure of consideration. 27, n.

If an invention wholly fail, or be altogether useless for the purpose described, the letters patent are void. *Manton v. Parker*, 192 & 484, n. m.

Partial and total failure of consideration to be distinguished from each other. 484, n. m.

The failure of consideration in respect of total want of utility different from that in respect of partial want of utility. 109, n. k.

FALSE SUGGESTION.

False recital or suggestion a ground for repealing the letters patent. *R. v. Mussary*, 41.

But it must be in respect of something material, and part of the consideration of the grant. *Ibid.*

Letters patent for certain improvements in machinery are void on the ground of false suggestion, if one of the inventions claimed be not an improvement. *Morgan v. Seanard*, 196.

Letters patent being for several things by one single process, if the mode fail as to one, the patent is void. *Turner v. Winter*, 82.

Letters patent for a watch, the invention being only of a part, void for false suggestion. *Jessop's case*, 42, n.

Letters patent for a new and improved method of drying and preparing malt, the invention being the making a colouring substance from malt, void for false suggestion. *R. v. Wheeler*, 42, n.

Letters patent for sharpening knives, razors, and scissors, the mode described being inapplicable to scissors, void for false suggestion. *Felton v. Greaves*, 42, n.

The novelty of every part of the invention is the consideration of the grant, so that if part of the consideration fails, the patent is void for false suggestion. *Morgan v. Seanard*, 196.

The suggestion in a Scotch patent, that an invention was new within *hæc regna*, when it was well known and in public use in England, is false, and will vitiate the grant. *Brown v. Annandale*, 443.

False recital in letters patent not by way of suggestion, or any part of the consideration, may not vitiate. *Morgan v. Seanard*, 196.

False suggestion distinct from insufficient or incorrect description in the specification, 42, n.

If an invention be new and useful on the whole, there is no false suggestion. *Hanworth v. Hardcastle*, 483.

Part of the invention being useless may not involve any false suggestion. *Morgan v. Seaward*, 197.

As, where it is discovered that part of the invention not claimed as essential, may be altogether dispensed with. *Lewis v. Marling*, 495.

Semble, That the subsequent invention and insertion in the specification of a different mode of carrying out a principle, which the patentee had reduced into practice in one or more modes at the time of the granting of the letters patent, is no false suggestion. *Crossley v. Beverley*, 114, n. a, & 116.

Semble, That it would be an objection to a patent that a party did not insert in his specification the most improved methods with which at the time of enrolling the specification he was acquainted. *Ibid.* 116.

The rule, that if part of an invention fails the patent is void, is a technical rule to be interpreted strictly. *Crossley v. Beverley*, 118.

The insertion of an improvement made during the interval for specifying is no fraud either on the crown or the public. *Ibid.* 118.

The suggestion of the invention is the foundation of the grant. *Minter v. Wells*, 129.

GRANT.

See CONSIDERATION. TERM.

To grantees for twenty-one years, 3 Jac. 1 (A.D. 1606), to make, utter, and sell smalt, with power to all others to use the same. *Baker's* patent, 9 & 10.

Grant determined by declaration of crown, on failure of the parties to supply the country with smalt at reasonable rates. *Ibid.* 11.

Fresh grant, 6 Jac. 1 (A.D. 1609), for thirty-one years, on the same conditions. *Ibid.* 11.

Preceding grant surrendered, and fresh letters patent, 16th of February, 16 Jac. 1, for thirty-one years. *Ibid.* 12.

Grant of the sole making of cards void, being contrary to law. *Case of Monopolies*, 2.

Grant of the sole importation of any commodity, void. *Ibid.* 4.

As of foreign wine. *Ibid.* 4.

Subsequent or second grant of same thing, void. 15, n. h.

Determination of former grant to be recited in subsequent grant (6 H. 8, c. 15). 15, n. h.

Grant in respect of a new trade, or an engine tending to the furtherance of a trade that never was used before, for a limited time, good. *Darcy v. Allin*, 6; *Crane v. Price*, 411.

Grant in respect of the working or making of any manner of new manufacture, for fourteen years, to the true and first inventor, valid (Stat. 21 Jac. 1, c. 3, s. 6). 31.

Grant to be construed according to the intent and meaning of the grantor. *R. v. Mussary*, 41.

GRANTEE.

Where any man by his own charge and industry, or by his own wit and invention, doth bring any new trade into the realm, or any engine tending to the furtherance of a trade that never was used before, and that for the good of the realm. *Case of Monopolies—Darcy v. Allin*, 6; *Crane v. Price*, 411.

The manufacturer within this country of an article previously sold here, but imported from abroad. *Baker's* patent, 9, 11 & 13.

The true and first inventor (21 Jac. 1, c. 3, s. 6). 30.

The introducer of an invention, new in England. *Edgebury v. Stephens*, 35.

See INVENTOR.

GREAT SEAL.

The great seal for different parts of the United Kingdom distinct, notwithstanding the acts of union, 49, n.

See CAVEAT.

IMPORTATION.

The grant of the sole importation of any commodity, void. *Case of Monopolies*, 4.

As of foreign wines. *Ibid.*

Importation of glass from Scotland, or any foreign parts, not to be restrained. *Mansell's patent*, 26.

IMPORTER.

The importer or introducer of a manufacture entitled to a patent. *Baker's patent*, 9, 11 & 12; *Edgebury v. Stephens*, 35.

IMPROVEMENT.

An improvement on an existing thing is the subject of a patent. *Hill v. Thompson*, 244.

But the invention must be strictly confined to such improvement. *Ibid.* 245.

Also such patent is valid, although the improvement be on an existing patent. *Ex parte Fox*, 413.

Or, requiring the use of that of which another has the exclusive right. *Crane v. Price*, 412.

If any one of several inventions in letters patent for improvements be not an improvement, the patent is invalid. *Morgan v. Seaward*, 197; *Cornish v. Keene*, 505; *Losh v. Hague*, 204; *R. v. Arkwright*, 72.

Cheapness of production is an improvement. *Cornish v. Keene*, 506.

See ADDITION and SUBJECT-MATTER.

INFRINGEMENT.

The similarity in point of structure of the alleged piracy to an article made according to the patent, is presumptive evidence, until the contrary be shown, of the two being of the same manufacture. *Huddart v. Grimsham*, 91.

A slight departure for the purpose of evasion an infringement; the question is, whether the mode of working is substantially different? *Hill v. Thompson*, 242.

Sale of an article which might have

been improved according to a patent process, coupled with the fact of the defendant having the means of practising such process within his reach, evidence for the jury on the question of infringement. *Hall v. Boot*, 101.

The question of infringement peculiarly for the jury, who must say, whether the defendant has availed himself of the invention of the plaintiff, with such variation only as will prevent its being a new discovery. *Walton v. Potter*, 586.

A specious variation in form, or ingenious alteration in the mode of adaptation, an infringement of the patent. *Ibid.* 589.

Proof of the making of that which is the subject of the patent, without evidence of the sale or use of that so made, is sufficient to constitute a breach of the letters patent. *Jones v. Pearce*, 125.

The sale of an article of the same fabric, and made in the same manner as the article which is the subject of the patent, is evidence of a using of the invention within the prohibitory clause of the letters patent. *Gibson v. Brand*, 630.

If the invention consist in applying the air heated while *in transitu*, then, however great the improvement, which the defendant's apparatus may be, on that described in the specification, it is no less an infringement. *Neilson v. Harford*, 310.

The improvements claimed must all be shown to be new, though it need not be shown that the alleged infringement was an imitation of the whole of them, an imitation of any one being sufficient to maintain the action. *Gillett v. Wilby*, 270.

The identity of purpose, and not of name, is the criterion in judging of the similarity or dissimilarity of inventions. *Cutler's patent*, 427.

The doing any of the acts specified in the prohibitory clause of the letters patent, is an infringement. *Walton v. Bateman*, 615.

The specification having described the invention to consist in welding iron by circular pressure through dies or holes, the welding produced by passing the iron through grooved rollers, though not so perfect, is an infringement. *Russell v. Cowley*, 462.

The inventor of a principle, coupled with some mode of carrying the principle into effect, is entitled to protection against other modes of carrying out the principle. *Jupe v. Pratt*, 146.

The substitute of one mechanical equivalent for another is but a colourable difference. *Morgan v. Seaward*, 171.

The substance of the invention and principle of the machine, and not the mere form, are to be looked to. *Ibid.*

The invention consisting in applying the air heated *in transitu* between the bellows and the furnace, however great the improvement made by the defendant on the method described by the plaintiff, it is no less an infringement. *Neilson v. Harford*, 310.

Exposing to sale not an infringement of the letters patent. *Minter v. Williams*, 136.

The specification claiming the shearing from list to list with a rotary cutter, the use of that cutter for such purpose is an infringement of the patent, without reference to the other mechanical arrangements employed. *Lewis v. Davis*, 490; 490, n. r.

The absence of certain parts does not make the alleged piracy no infringement. *Jones v. Pearce*, 124.

An act of sale not necessary to constitute or complete the infringement. *Ibid.* 125.

The patent being for the application of detonating powder to discharge fire-arms, mechanical arrangements apparently very different, whereby the same effect is produced, are an infringement. *Forsyth's* patent, 96.

Unless the particular arrangement be the substance of the invention. 97, n. b.

The invention claimed being the application of the self-adjusting leverage to the back and seat of the chair, any combination of that to the same subject is an infringement. *Minter v. Wells*, 136.

An exposing to sale not necessarily prejudicial, and may not be an infringement. *Minter v. Williams*, 138.

The selling by the defendants of articles the subject of any part of the patent, sufficient evidence of infringement. *Cornish v. Keene*, 502.

Evidence of infringement. *Galloway v. Bleaden*, 523.

INJUNCTION.

Will be granted to restrain sale in England of Bibles printed in Scotland, during an exclusive privilege to print such books in England. *Universities of O. & C. v. Richardson*, 49.

Semble, That an injunction would not be granted to restrain the sale of a patent article, part of the private effects of a person. *Ibid.*

If there has been no infringement, the court have no power to make compensation for the injunction. *Morgan v. Seaward*, 168.

Ample justice may be done by the account. *Ibid.*

As, where the plaintiff would only be entitled to 1s. per ton on the iron made. *Neilson v. Thompson*, 286.

An injunction will be granted after expiration of patent, to restrain the sale of machines piratically made during the patent. *Crossley v. Beverley*, 119.

An account will be ordered of profits resulting from the use of metres piratically made during the patent. *Crossley v. Derby Gas Company*, 119.

Not usual to give security for damages occasioned by an injunction, in case the patent should turn out to be invalid. *Bickford v. Skerres*, 214.

Damages may in some cases be recovered by the defendants for the injury sustained by them, in consequence of the respondents having stopped works by interdict, instead of allowing the works to proceed by trusting to the caution offered at the passing of the bill. *Stirling v. Roebuck*, 50.

An injunction will not be granted until the right can be tried, if the damage consequent on the stoppage of the works is great and irreparable. *Neilson v. Thompson*, 286 & 50.

Or, where the plaintiff has permitted the defendant to go on and incur expense under the expectation of receiving a certain sum, the defendant being at liberty at any time to dispute the title of the plaintiff as patentee. *Ibid.* 286.

The object of the court in granting or refusing an injunction is to secure to each party their respective rights. *Ibid.*

An injunction being applied for, it is not sufficient for the defendant to admit the infringement, and promise not to repeat it. *Losh v. Hague*, 200.

An application for an injunction must be made without unreasonable delay. *Ibid.* 201.

A party must not lie by, and after unreasonable delay come in and claim a share of the profits from a piratical use of an invention. *Crossley v. Beverley*, 120.

On application *ex parte* for an injunction, the affidavits must state the party's belief at that time, that he was the true and first inventor. *Hill v. Thompson*, 231.

On motion for an injunction, the affidavits should state the alleged invention with particularity. *Ibid.* 230.

A doubtful question of infringement must be decided by a jury; but the court will order what is to be done in the mean time. *Morgan v. Seaward*, 168.

Before injunction is granted, the nature of the infringement must be stated with particularity. *Hill v. Thompson*, 231.

The grant of letters patent and exclusive possession of some duration under them, is a ground for injunction, without previous trial at law; *aliter*, if the patent but of yesterday, and the validity of the patent be denied. *Hill v. Thompson*, 231.

If a person has had exclusive enjoyment, the court will give credit to the apparent right, and restrain its violation; but if doubts be entertained as to the validity of the patent, the injunction will be granted only on terms. *Ibid.* 236.

Length of enjoyment is looked to in answer to a theoretical objection to the specification. *Bickford v. Skenes*, 213.

Enjoyment for twelve years a *prima facie* case for an injunction, if an infringement be shown. *Neilson v. Thompson*, 277.

An injunction obtained *ex parte* dissolved, the defendants directed to keep an account, the plaintiff put upon terms of bringing an action, with liberty to

have the injunction revived after the trial of action, or in case of any unreasonable delay being interposed on the part of the defendant. *Hill v. Thompson*, 232.

An injunction obtained *ex parte* being disposed of, the defendants were ordered to admit plaintiff's title, and to keep an account, and to admit inspection of their premises, and to produce books and papers. *Morgan v. Seaward*, 169.

Injunction dissolved where great mischief would accrue to defendant by the stoppage of works erected by the permission of the plaintiff in expectation of receiving 1s. per ton on the iron made, the utmost the plaintiff could be entitled to receive being fully secured to him by the defendant undertaking to keep an account, and to deal with as the court shall direct. *Neilson v. Thompson*, 286.

But where the defendant has paid under a contract, and by breaking that contract exposed himself to the consequence of the stoppage of his works, the injunction must be continued. *Neilson v. Fothergill*, 289.

Injunction dissolved, the defendant paying into court the money which had become due under the contract prior to the defendant giving notice of his intention to dispute the plaintiff's title. *Ibid.* 290.

On an application for injunction after notice, ordered that the plaintiff be at liberty to bring an action, provided the declaration be delivered within a month, and a mutual inspection of works of plaintiff and defendant to take place. *Russell v. Comley*, 458.

The injunction having been dissolved, the plaintiff to bring an action to establish his patent right, and the defendant to keep an account in the meanwhile; a verdict having been obtained for the plaintiff on the trial of the action, on application being made to revive the injunction, it was objected that the defendants intended to move for a new trial; and the matter was ordered to stand over till the result of that application should be known; the parties continuing to keep an account in the interim. *Hill v. Thompson*, 238.

Injunction granted after action at law. *Russell v. Comley*, 471.

Injunction revived as of course after judgment, establishing the validity of the patent. *Neilson v. Harford*, 373.

The fact of an action being pending against another party, is not a sufficient ground for continuing an *ex parte* injunction, without putting the plaintiff to bring an action against the new defendant. *Russell v. Barnsley*, 472.

Injunction continued, the plaintiff undertaking to bring an action to try the right within three months, notwithstanding another action pending. The infringement to be admitted. *Ibid.* 473.

The court has authority to grant an injunction *simpliciter*, and without imposing any terms; but such a course is not usual. *Wilson v. Tindal*, 730, n.

It is not of right, but usual when an injunction is granted, to impose on a plaintiff the terms of bringing an action to try the validity of his patent. *Ibid.*

INSPECTION.

Defendant ordered to permit an inspection of machinery made, or to be made, in pursuance of a certain contract. *Morgan v. Seaward*, 169.

Mutual inspection of works of plaintiff and defendant ordered. *Russell v. Cowley*, 458.

INVENTION.

May be the result of accident, depending on no theory, but on a lucky experiment. *Liardet v. Johnson*, 54.

Not essential that labour, thought, or money, should have been bestowed on invention. *Crane v. Price*, 411.

The application of known elements to a particular purpose. *Huddart v. Grimshaw*, 86, 93, & 95.

INVENTOR.

1. At Common Law.

The introducer of a new trade into the realm, or of any engine tending to the furtherance of a trade, is the inventor (44 El. A. D. 1602). The *Case of Monopolies*—*Darcy v. Allin*, 6; *Crane v. Price*, 411.

The introducer of an invention, or mode of manufacture, from abroad. *Baker's & Mansell's patent*, 9 & 17.

See GRANTER.

2. By Statute.

The introducer of an invention new in England, though practised beyond the sea before, is the inventor within the meaning of the statute 21 Jac. 1, c. 3. *Edgebury v. Stephens*, 35.

He is the inventor who publishes the invention to the world, not he who confines it to his closet. *Dollond's case*, 43.

The discovery must not be confined to the knowledge of the party making it, but it must have been communicated, more or less, or it must have been more or less made use of, so as to constitute discovery. *Hill v. Thompson*, 244.

The party making an unsuccessful attempt or experiment, which becomes abandoned, is not an inventor. *Jones v. Pearce*, 124.

He is not the inventor who has the invention communicated to him from another in this country. *Tennant's case*, 125.

Even though by a person in his employ. *Barker v. Shaw*, 126.

But the inventor may employ an ingenious person to perfect the details of his invention. *Minter v. Wells*, 132.

An inventor may employ a professed mechanic to perfect the mechanical details of his invention. *Bloxam v. Else*, 132, n. c.

Before the plaintiff took out his patent, a model of a similar machine was made, unknown to him, and a machine was begun to be made from it, but no similar machine was ever used in this country before the patent. Held, that this was not sufficient to defeat the patent, it not being shown that the plaintiff had seen the model. *Lewis v. Marling*, 491.

The introducer is the inventor; it is sufficient to support a patent, that the invention is new as to general use and public exercise. *Ibid.* 492.

Query, Whether, in order to invalidate letters patent, it is necessary to show a use which may be called at all general as well as public. 493, n. y.

But the introducer and publisher of that which is not in use may not be the true and first inventor. *Gibson v. Brand*, 628.

The question, whether the plaintiff is the true and first inventor or not, depends on whether he borrowed the invention from a source open to the public. *Walton v. Potter*, 592.

He who adopts that which has been published in a source open to the public is not the inventor. *Cornish v. Keene*, 508.

Where it appeared in evidence that the patentee himself invented and brought into use the machine for which the patent was granted, but before that time several other persons had seen a model and a specification of such a machine, which were brought over from America; held, that the patentee was, nevertheless, to be considered the inventor within the meaning of the statute, 21 Jac. 1, c. 3, s. 6, no machine having been manufactured and brought into use from the model and specification, and there being no evidence that the patentee had ever seen them. *Lewis v. Marling*, 493.

He is not a true and first inventor within the meaning of the statute who has seen the model or specification of a machine subsequently patented, but which had not been in public use and operation. *Ibid.* 496.

The party introducing an invention, not before in public use, is the true and first inventor, though others may have received a private communication of the invention from abroad. *Ibid.* 496.

The introducer of an invention is *primâ facie* the inventor. *Minter v. Wells*, 131.

The person who suggests the principle is the inventor, not he who as a workman carries out the suggestion into effect. *Ibid.* 132.

And although a skilful mechanic be employed to perfect the details. *Ibid.* 132, n. e.

In the case of simultaneous inventors, the party first obtaining the letters patent is the inventor in law. *Forsyth v. Riviere*, 97; *Galloway v. Bleaden*, 529.

The distinction between first inventor and public use is, in the abstract, sound. *The Househill Company v. Neilson*, 689.

The prior use of an invention, though abandoned, is evidence to negative the title of a party as the inventor. *Ibid.* 720.

Originality of invention not destroyed by previous glimpses of the same thing. *Ibid.* 690.

Semble, That the title of a party as true and first inventor is not destroyed by the fact of the same invention having been previously made, if altogether lost sight of. *Ibid.* 717.

JURY.

If the parties consent the jury may be asked the grounds of their verdict, but not otherwise. *Walton v. Potter*, 600.

Any specific question to be put to the jury ought to be short, and must be with their consent. *Ibid.* 612.

LETTERS PATENT.

See DATE.

Letters patent cannot be dated before the delivery of the warrant into Chancery (Stat. 18 H. 6, c. 1). 430, n. c.

The Chancellor will not alter the date of the sealing so as to enlarge the term for the enrolment of the specification. *Ex parte Beck*, 430.

A recompence and reward for making small within the kingdom. *Baker's patents*, 9 & 11.

To be construed favourably for the grantee. *Mansell's patent*, 26.

Granted in order that the public may learn the art. 36, n.

The term of fourteen years too long. *Ibid.*

Adequate reward and remuneration to the inventor the ground of extension of term. *Liardet's patent* (Stat. 16 G. 3, c. 19). 52.

See EXTENSION.

The granting and prohibitory part of letters patent expressed in different terms. 7, n., & *Minter v. Williams*, 138.

Semble, That letters patent containing a proviso more general than the statute authorizes are voidable. *Per* Lord Lyndhurst, L.C. 447.

The grant of letters patent not a matter of favour. *Arkwright v. Nightingale*, 61.

There may be several patents for the same object, the means of attaining the object being different. *Huddart v. Grimshaw*, 92.

The letters patent are *prima facie* evidence on the part of the person claiming the right. *Minter v. Wells*, 129.

The letters patent and specification are to be taken as one instrument in enforcing the claim of the inventor. *Crossley v. Beverley*, 117.

In concurrent applications for letters patent, the party first clothing himself with the legal right is the inventor. *Forsyth v. Riviere*, 97.

LICENSE.

Money paid for a license to use a patent afterwards appearing to be invalid cannot in general be recovered back. *Taylor v. Hare*, 292.

The plea of the invalidity of a patent may be an answer to an action for rent agreed to be paid for a license under a patent. *Chanter v. Leese*, 295.

The grant of an exclusive license to use a patent does not invalidate the patent itself, although the patent may be vested in twelve persons; and it is wholly immaterial to its validity in what number of persons such license is vested. *Protheroe v. May*, 414.

Such a license would not be invalid if the district or districts covered by the license included the whole extent of the patent. *Ibid.* 414.

LICENSEE.

A licensee under letters patent is a competent witness for the plaintiff in an action for an infringement. *Derosne v. Fairie*, 155.

MAKING.

The making, prior to obtaining a patent, for the purpose of experiment or for

other purposes than those of sale and commerce will not vitiate such patent. *Bramah v. Hardcastle*, 194.

Making without selling an infringement. *Jones v. Pearce*, 124.

MANUFACTURE AND NEW MANUFACTURE.

The word 'manufacture' in the statute, must be construed in one of two ways; it may mean the machine when completed, or the mode of constructing the machine. *Morgan v. Seaward*, 193.

A new principle developed, carried out, and embodied in the mode of using the principle, constitutes a new manufacture. *Walton v. Bateman*, 620.

Semble, That an expanding table, without reference to the mode by which the pieces are caused to diverge or expand, is a manufacture. *Jupe v. Pratt*, 150.

The introducing cords or strands of India rubber in combination with non-elastic strands in making a fabric, is a new manufacture, although similar cords may have been introduced in pipes after the fabric was complete. *Cornish v. Keene*, 518.

A slight difference from what has existed before may not be a new manufacture. *Hastings' patent*, 6; *Matthey's patent*, 6.

The welding tubes by fixed dies instead of rollers may be a new manufacture. *Russell v. Comley*, 466.

Tubes having been welded by grooved rollers or a maundril, it is a new manufacture to weld them on grooved rollers without a maundril. *Ibid.* 464 & 466.

The attaining the same result, or producing the same effect, in a different manner, is a new manufacture, as welding by dies instead of by grooved rollers. *Ibid.* 466.

The adaptation of a rotary cutter in a machine, so as to shear from list to list, a new manufacture, although the shearing from end to end by a rotary cutter, and from list to list by shears, are old. *Lewis v. Davis*, 490.

A button and a flexible shank being both old, their being simply put together, without regard to the particular means, is not a new manufacture. *Saunders v. Aston*, 75.

The speculations and suggestions of learned men will not vitiate letters patent, nor experiments in private or abandoned; but if the article has been sold, it is a question for the jury, whether that is a public user. *Gibson v. Brand*, 628.

The application of detonating powder by suitable mechanical means to discharge fire-arms. *Forsyth's* patent, 97.

The improvement in lace by gasing it. *Hall's* patent, 98.

The application of new implements and processes to obtain old results. 99, n.

The discovery of a principle, as a law of nature, or property of matter, not a new manufacture. *The Househill Company v. Neilson*, 683.

MEMORANDUM OF ALTERATION.

The Master of the Rolls has no jurisdiction to remove from the rolls of the Court of Chancery a memorandum of alteration enrolled under the statute. *Re Sharp's* patent, 641.

Query, whether an omission in the specification can be supplied by a memorandum of alteration enrolled under the statute. *Ibid.* 642, n. e.

Or, whether that which might be the subject of fresh letters patent, can be incorporated in existing letters patent by memorandum of alteration. *Ibid.* 642, n. e.

The Attorney and Solicitor General generally allow the enrolment of a disclaimer or memorandum of alteration, leaving the question of its validity to be decided by a court of law. *Ibid.* 642, n. e.

See DISCLAIMER.

MISTAKE.

Every mistake in a specification will not vitiate a patent. *Neilson v. Harford*, 340.

See AMENDMENT—WORD.

MODEL.

To be made, deposited, and preserved. *Lombe's* act, 39.

MONOPOLY.

An allowance of or for the sole buying, selling, making, working, or using of anything, whereby persons are restrained of any freedom they had before, or hindered in their lawful trade. *Darcy v. Allin*, 5, n.

A grant of the sole making of cards void, as being a monopoly and contrary to law. *Ibid.* 2.

The power of exclusive sale of any commodity, a monopoly. *Ibid.* 5.

True tests or incidents of a monopoly, the price raised, quality of commodity inferior, and artificers impoverished. *Ibid.* 3.

All monopolies declared void except letters patent for the sole working or making of any manner of new manufacture to the true and first inventor. (Stat. 21 Jac. 1, c. 3, s. 5, 6.) 30.

Monopoly patent in respect of a new trade or engine in furtherance of a trade for a limited period lawful. *Darcy v. Allin*, 6; *Crane v. Price*, 411.

A patent of monopoly and of privilege different. *Darcy v. Allin*, 5, n.

NEW TRIAL.

The fact of a *sci. fa.* pending is a ground for not entertaining a particular objection to the validity of a patent on a motion for a new trial. *Haworth v. Hardcastle*, 480.

New facts which would be ground for repealing letters patent by *scire facias* will not be received on motion for a new trial. *Lewis v. Marling*, 495.

NOTICE OF OBJECTIONS.

In an action for the infringement of, and in a *sci. fa.* to repeal a patent, the defendant and plaintiff respectively shall give a notice of any objections on which he means to rely at the trial. (Stat. 5 & 6. W. 4, c. 83, s. 5.) 260, n. a.

If a defendant neglect to deliver the notice of objections with his pleas, he must obtain leave to plead *de novo*. *Losh v. Hague*, 203, n.

The notice of objections is intended to apprise the plaintiff of what he is to meet under the respective pleas. *Ibid.* 203.

It is not sufficient to state an objection in the notice of objections, unless there be a plea to which it can be applied. *Gillett v. Wilby*, 270.

The notice of objections should be drawn with reference to the pleas, or notice given of the pleas to which the objections are to be applied. *Walton v. Bateman*, 616.

The notice of objections must be taken to be part of the pleadings, and should be treated as part of the plaintiff's case. *Neilson v. Harford*, 309.

In actions for infringing a patent, the notice of objection delivered by a defendant under 5 & 6 W. 4, c. 83, s. 5, is not conclusive at his peril: but the court under its general jurisdiction may model its proceedings and order a further and fuller notice. *Bulnois v. Mackenzie*, 260.

Doubtful whether the statute requires the names of those who have used the invention to be given. *Ibid.* 263.

The notice of objections meant to afford more specific information than the plea. *Ibid.* 263.

The court may decide on the sufficiency of the notice: this power is not created by the statute. *Ibid.* 263.

The jurisdiction of the court as to these questions is analogous to that of set off; but to require the names and addresses of all persons who have used the invention may prejudice the defendant. *Ibid.* 263.

A particular of objections delivered by the defendant in an action for infringing a patent right must be precise and definite. It is not sufficient to say that the improvements, or some of them, have been used before; the defendants should point out which. *Fisher v. Derwick*, 264.

The object of the statute not to limit the defence, but to limit the expense, and to prevent surprise on the plaintiff. *Ibid.* 267.

The defendant is not limited to the number of his objections, but he must state them with precision. *Ibid.* 268.

The court refused to order a particular of the names of the persons to whom sales of the invention, prior to the date of the patent, are alleged to have been made. *Carpenter v. Walker*, 268.

The words 'divers other persons,' struck out of an objection. *Fisher v. Derwick*, 551, n.; *Galloway v. Bleden*, 268, n. d.

The defendant may apply to a judge at chambers to add the names of other persons. *Fisher v. Derwick*, 551, n. f.

The particular machines to which the improvements are said to be inapplicable must be specifically stated. *Ibid.* 551, n. f.

The part or parts in respect of which an alleged discrepancy between the specification and letters patent exist must be stated. *Ibid.* 551, n. f.

The notice of objections intended to give the plaintiff more information than the plea; so that in general, a notice in the terms of the plea will not be sufficient. *Neilson v. Harford*, 370.

But the objection may be so fully expounded on the record, that a notice in terms of the plea will be sufficient. *Ibid.* 364 & 370.

At *nisi prius* the only question is, whether the terms of the notice fairly include the objection taken. *Ibid.* 370.

If the notice be too general, previous application should have been made to the court. *Ibid.* 370.

It is not sufficient notice to say, that the invention was wholly or in part used before. *Heath v. Unwin*, 552.

It is a sufficient notice to state "that the invention is not properly set forth in the specification." *Ibid.* 552.

The notice of objections must point out the defence with greater particularity than the record. Books intended to be relied on should be distinctly described. The court will see that the objection is stated with reasonable particularity, according to the circumstances of the case. *Jones v. Berger*, 544.

The objection, that the plaintiff did not state the best mode with which he was acquainted is sufficient. *Ibid.* 546.

Semble, That a notice of the invention being known to persons of a particular trade is sufficient. *Ibid.* 547 & 550.

Semble, The objection, that an invention was used by many would not be supported by evidence of user by one person. *Ibid.* 547.

The new rules being in operation before the statute, the legislature must have intended that the notice of objections should point out the defence with

greater degree of particularity than the record. *Ibid.* 548.

The defendants should specify books intended to be relied on, and cannot be prejudiced by so doing. *Ibid.* 548.

The words 'and elsewhere' to be omitted, the places to be specified should fresh evidence arise. *Ibid.* 549.

The pleas may be narrowed by naming the person or limiting the nature of the inquiry. The words 'and elsewhere' not unreasonable. *Ibid.* 550.

An averment relating to a particular trade in certain towns is limited and definite, but under an averment, about common forges, with a reference to numerous places all over the kingdom, it is impossible to tell what is intended to be proved. *The Househill Company v. Neilson*, 552.

The section of the statute (5 & 6 W. 4, c. 83), as to the notice of objections, does not apply to proceedings in Scotland, the same object being obtained by the closed record. *Ibid.* 552, 711, & 714.

A 'statement in the notices of objections, that the specification is calculated to deceive, is sufficient to let in evidence as to any particular passage being false. *Neilson v. Harford*, 324, 332, & 370.

See Russell v. Ledsam, 11 M. & W., 647.

NOVELTY.

The general question is, whether the invention was known and in use before the patent. *Liardet v. Johnson*, 53.

Two distinct issues—the one whether the invention was in use, the other, whether the party derived it from another person or from some public source. *Cornish v. Keene*, 507.

The distinction between the issues as to the first inventor and public use by others of the invention, is in the abstract sound. *The Househill Company v. Neilson*, 689.

The grantee must be the first inventor, and the invention must not be in use at the time of the granting the patent. For the purpose of meeting the case, that the party is the inventor, evidence may be gone into to show that a person used the invention ten years ago, and then abandoned it. *Ibid.* 719-20.

Admitting that he is the inventor, if this invention be known and used at the time at which the patent is granted, the patent is void. *Ibid.* 720.

The notorious use of an invention, though discontinued, sufficient to invalidate subsequent letters patent. *Ibid.* 710.

The prior use of a perfected invention, if such prior use be publicly known, will vitiate the subsequent letters patent for the same invention. *Ibid.* 716.

Semble, That the prior use and abandonment of an invention, if lost sight of and not known to the public, will not vitiate letters patent for the same invention. *Ibid.* 717.

If an invention is in use at the time of the making the grant, the party cannot have a patent, although he is an original inventor; if it is not in use he cannot have a patent if he is not an original inventor. *Ibid.* 719.

The statute excludes from a patent the inventor who shall have made the invention so public, that others at the time shall use it. The consideration fails. *Ibid.* 719.

The sale of the article in the market by the patentee will vitiate letters patent obtained subsequently to such sale. *Wood v. Zimmer*, 44.

The making of two or three of the patent apparatus by the patentee prior to the date of the grant will not vitiate it, unless others shall use the invention. *Bramah v. Hardcastle*, 194.

The construction and sale, before the date of the patent, of the patent machine by the patentee for gain to any of the public who will buy it, invalidates the subsequent letters patent. *Morgan v. Seaward*, 194.

If such sale did not vitiate the subsequent letters patent, the inventor might practically have a monopoly of much longer duration than fourteen years. *Ibid.* 195.

The manufacture of two pieces of machinery for a party connected in business with the patentee, under an injunction of secrecy, and their user abroad, may not be such a publication as will vitiate the subsequent grant. *Ibid.* 195 & 705.

The making of an article in this country, though for exportation, will vitiate a subsequent patent, unless under special circumstances. *Carpenter v. Smith*, 536.

The manufacture and sale, without secrecy, by a workman, of seven dozen and a half of locks, according to a model which is retained, is a public use and exercise of the invention. *Carpenter v. Smith*, 536.

The novelty of each of the several heads of invention contained in the specification must be sustained. *Gibson v. Brand*, 636.

If the patent be for a new or improved process, and the jury find the process not to be new but improved, *semble* that the patent is valid. *Ibid.* 633.

See INVENTOR. USER. MANUFACTURE.

OMISSION.

The omission of an instrument, or part of a process in attaining the same result, may be a new manufacture. *Russell v. Comley*, 464, 466, 469.

As, in welding tubes by dies or rollers, without the use of a maundril, or any internal support theretofore used. *Ibid.* 466.

See SUBJECT-MATTER.

ORDER OF PROCESSES.

Semble, That any change in the order or series of processes, leading to an improved manufacture, is the subject of letters patent. *Hellinwell v. Dearman*, 401, n. t.

PARTICULARS OF INFRINGEMENT.

In an action for infringement of a patent, the plaintiff will not be compelled to produce a specimen of the patent articles to enable the defendant to prepare his defence to the action. *Crofts v. Peach*, 268.

Particulars of infringements will be ordered in certain cases. *Perry v. Mitchell*, 269.

PLEADING.

In an action for the infringement of a patent for certain improvements in a cabriolet, three pleas were pleaded: 1st, The general issue; 2d, That the alleged improvements were not new; 3d, That the plaintiffs were not the true and first

inventors of the improvements. Held, that on this state of the pleadings it could not be contended that the patent was illegal. *Gillett v. Wilby*, 270.

The plea, that the invention is not a new manufacture known in England, admits the invention to be a manufacture, and puts in issue the novelty. *Walton v. Potter*, 601 & 611.

Matter stated in a plea as inducement to a specific allegation, upon which an issue in fact is taken, is not on the record for other purposes than the issue. *Ibid.* 601.

Semble, That a specification so set out in a plea is on the record for the purpose of arresting the judgment. (*Coltman, J.*) *Ibid.* 604.

An issue in fact on a plea being found for the plaintiff, the defendant cannot resort to matter not in issue and admitted in that plea, to arrest the judgment. *Gibson v. Brand*, 631.

To raise the question of the insufficiency of the specification in point of law, the defendant should, after setting out the specification, and averring no other to have been enrolled, aver the letters patent to be void. *Ibid.* 632.

But *semble*, That such a plea is bad on special demurrer. *Muntz v. Foster*, 7 Jur. 1110.

The issue as to the infringement assumes the validity of the patent. *The Househill Company v. Neilson*, 676 & 701.

The objection that the subject-matter of the patent is for a principle, is not open upon issues as to the infringement and novelty. *Ibid.* 677.

The issues as to the first inventor, and the prior use of the invention, distinct. *Ibid.* 689.

The objection, that the specification is not so large as the title, is not let in by the general plea of the insufficiency of the specification. *Derosne v. Fairie*, 161.

The plea of the insufficiency of the specification, will not let in an objection, that it does not set forth the double process for which the patent is taken out. *Ibid.* 161.

Semble, That the general plea of the insufficiency of the specification will not raise the question, whether the patent is for a principle? *Jupe v. Pratt*, 151.

Semble, That a plea, denying the utility of a patent, is bad. *Ibid.* 151.

Semble, That in order to raise the defence of want of utility, the defendant should pursue the words of the statute, and not plead, that the invention is of no use. *Morgan v. Seaward*, 197.

A plea, that the said invention was not at the time of making the said letters patent a new manufacture within this realm, bad for duplicity. *Semble*, That the plea would have been good, if the words of the statute had been pursued. *Spilsbury v. Clough*, 255.

An objection to the title not admissible under the plea of the insufficiency of the specification. *Neilson v. Harford*, 312.

After verdict, a plea is to be taken in the sense disclosed by the specification. *Morgan v. Seaward*, 196.

In an action by an assignee, a declaration averring that the letters patent became duly assigned, without showing how, is sufficient after verdict. *Cornish v. Keene*, 501, n. a; 519, n. z.

The defendant being the officer of a public company, a declaration without the usual averment to that effect bad after verdict. *Galloway v. Bleaden*, 529, n. e.

Amendment allowed on payment of costs of rule to arrest the judgment, and foregoing the costs of the action. *Ibid.*

The objection, that an invention is not the subject-matter of a patent, is not open on pleas denying the novelty of the invention or the sufficiency of the specification. *Walton v. Potter*, 598.

The plea, that the invention was not at the time of granting the letters patent a new invention as to the public use, admits the invention to be the subject-matter of letters patent, and puts in issue the novelty only. *Ibid.* 601.

Pleas denying the novelty, and that the invention was a new manufacture at the time of the grant, will not be allowed to be pleaded together. *Ibid.* 598, n. h.

Pleas denying that parts of the invention were known, and are not the subject of letters patent, will not be allowed with pleas denying the novelty of the invention as a whole, and that the invention was a new manufacture within the meaning of the statute. *Walton v. Bateman*, 614, n. a.

Evidence that the defendant gave an order in England for articles to be made

according to plaintiff's invention, and which articles he afterwards received, supports a breach of making, using, and putting in practice, the plaintiff's invention. *Gibson v. Brand*, 631.

PRINCIPLE.

The making wheels on a particular principle, which is described in the specification, is the subject of a patent. *Jones v. Pearce*, 123.

A claim to the application of a self-adjusting leverage to the back and seat of a chair, is not a claim to a principle, but to its application, and is the subject of a patent. *Minter v. Wells*, 134.

Semble, That the user of a method or principle in ignorance, will not vitiate the letters patent for an invention founded on that method or principle. *Minter v. Mover*, 140.

The discovery of a principle, or law of nature, or property of matter, not the subject of a patent, apart from any mode of turning it to account in the practical manufactures and arts of life. *The Househill Company v. Neilson*, 683.

A patent cannot be granted for a principle, but for the principle coupled with the mode of carrying the invention into practice. *Jupe v. Pratt*, 146.

The principle of condensing in a separate vessel, when given to the world in the shape of a steam engine, is a new manufacture. *Ibid.* 150.

Semble, That a claim to a principle to be carried into effect in any way you will, is a claim of the principle. *Neilson v. Harford*, 355.

In the application of a principle, every mode need not be expressly described in the specification. *Ibid.* 356.

The patent is not for the principle, but for the mode of carrying the principle into practice. *Ibid.* 342.

That which has had an anterior existence, so that it may be considered as invented *pro bono publico*, is not the subject of a patent. *Ibid.* 342, n. c.

If that principle be embodied in a machine, and a better machine for carrying out the principle is invented, the latter, unless a colourable imitation, is not an infringement of the former. *Ibid.* 342, n. c.

If the principle *per se* could be infringed, then all improvement is stopped. *Ibid.* 342, n. c.

See SUBJECT-MATTER.

PRIVATE ACTS.

See EXTENSION, & 37, n. & 40, n.

PRIVILEGE.

Patent of privilege not the same as patent of monopoly, 5.

PRIVY SEAL.

The privy seal bill the authority under which the holder of the great seal puts the seal to the patent. *Re Nickels' patent*, 656.

The privy seal bill no authority to any person besides the Chancellor. *Ibid.* 659.

The date of a privy seal bill when amended, is not altered. *Ibid.* 663.

PROFITS.

To be estimated according to the amount of saving. *The Househill Company v. Neilson*, 697, n. r.

To be taken on use of machines piratically made during a prior period. *Crossley v. The Derby Gas Company*, 120.

PUBLICATION.

Publication in a well-known book of the description of an article precisely the same as one of the articles claimed in the specification of the patent, evidence of want of novelty. *R. v. Arkwright*, 72.

The speculations of ingenious men, though published, but not brought into actual use, will not stand in the way of the inventions of other ingenious men who may apply such suggestions and speculations. *Carpenter v. Smith*, 534.

Prior publication in a book or specifi-

cation is an objection to a patent, and not simply evidence of an objection. *Jones v. Berger*, 550.

Publication in a book of a machine distinctly and clearly described, corresponding with the description in the specification of a patent, negatives the title of a party as true and first inventor. *The Househill Company v. Neilson*, 718, n.

Semble, That such publication must not be by way of speculation or suggestion, but as of complete, successful, and perfect invention. *Ibid.* 719.

If any part of that which is of the substance of the invention has been communicated to the public in the specification of a prior patent, all exclusive right in respect of it is gone. *Huddart v. Grimshaw*, 86.

Semble, That publication in the specification of a prior patent is notice to the public. *Ibid.* 86, n. c. & 592, n. c., & 719.

The specification of a prior patent, enrolled after granting a subsequent patent, and containing part of the invention claimed by such subsequent patent, is not conclusive against the validity of the subsequent patent. *Cornish v. Keene*, 519.

Publication in the specification of a prior patent of that which is covered by a subsequent patent, will vitiate the latter. *Ibid.* 510.

The making articles according to an invention, afterwards made the subject of a patent, will not vitiate such patent, without publication, by act of sale, or otherwise. *Bramah v. Hardcastle*, 44.

A sale prior to the date of the letters patent is a publication. *Wood v. Zimmer*, 44.

Publication in such a form that the public may derive advantage from it, essential to confirming the legal character of inventor. *Dollond's case*, 43; *Carpenter v. Smith*, 534.

The discovery must not be confined to the knowledge of the party making it, but it must have been communicated, more or less, or it must have been more or less made use of so as to constitute discovery. *Hill v. Thompson*, 244.

See USER.

RECITALS.

A party to a deed is estopped from denying what is stated in a recital in the deed. *Bowman v. Taylor*, 293.

The recitals of the early letters patent show the motives and consideration of the grants. *Baker's patents*, 9-13; *Mansell's patent*, 17.

SALE.

The exclusive sale, except in connexion with the working or making of the manufacture, is not the subject of grant. *Darcy v. Allin*, 7, n.

The exclusive privilege of sale, or of uttering and putting to sale, associated in the granting part of the letters patent with the working and making the manufacture so to be sold, and is altogether omitted in the prohibitory part. *Ibid.* 7, n.

A sale or vending, and the exposing to sale, are not the same thing; the latter may be no breach. *Minter v. Williams*, 136.

The vending is not expressly prohibited by the letters patent. *Ibid.* 138.

The sale of a manufacture before the date of the patent will vitiate the grant of letters patent for such manufacture, otherwise the patentee might have a longer monopoly than fourteen years. *Morgan v. Seaward*, 194.

The prior sale of the article by the patentee will vitiate his subsequent letters patent. *Wood v. Zimmer*, 44.

The previous sale of an article will vitiate subsequent letters patent for that article granted to any person. *Carpenter v. Smith*, 536.

SCIRE FACIAS.

A *sci. fa.* lies to repeal the grant when the same thing has been granted to two persons. *R. v. Mussary*, 41.

The crown shall have a *sci. fa.* to repeal a grant made on a false suggestion. *Ibid.* 41.

Or, when any thing is granted contrary to law. *Ibid.* 41.

Or, where a patent is granted to the prejudice of the subject. *Ibid.* 41.

Semble, A writ of *sci. fa.* does not issue as of course. *R. v. Neilson*, 672.

Semble, Two persons cannot have a *sci. fa.* *Ibid.* 673.

New facts which would be grounds for repealing a patent will not be received on a motion for a new trial. *Lewis v. Marling*, 495.

The fact of a *scire facias* pending is a ground for refusing a nonsuit on an objection to the patent. *Harworth v. Hardcastle*, 485.

Practice in proceedings in *scire facias*, 64.

The court refused to stay proceedings on the part of the plaintiff, in an action, so that a *sci. fa.* to repeal the patent might be first tried. *Harworth v. Hardcastle*, 486, n. n.

The court, after a verdict for the crown in a *sci. fa.* stayed proceedings in an action on a patent pending the rule for a new trial in the *scire facias*. *Ibid.*

Proceedings in a *scire facias* stayed by the Lord Chancellor to repeal the English patent after its expiration, and while proceedings on the Scotch patent were pending. *R. v. Neilson*, 665.

The Attorney General will enter a *nolle prosequi* to such suggestions in a writ of *sci. fa.* as are informal and improper. *R. v. Newall*, 671, n. e.

The suggestion in a writ of *sci. fa.* that the grant is prejudicial and inconvenient to the subjects in general, is too vague; it should state in what respects prejudicial. *R. v. Arkwright*, 64, n. c.

No evidence will be received under such an issue. *Ibid.* 64, n. c.

The repeal of a patent by *sci. fa.* is not conclusive to show that a prior judgment for the plaintiff in an action on the patent was erroneous. *Harworth v. Hardcastle*, 486, n. n.

SCOTLAND.

The act discharging monopolies, A.D. 1641, analogous to statute 21 Jac. 1, c. 3, in England, 34, n.

Terms of Scotch patent, 34, n.

The term of Scotch patents the same as English, since the union. *Ibid.*

The act of union having made Scotland part of the realm within the meaning of the statute of monopolies, letters patent for an invention imported from England to Scotland, or *vice versa*, as foreign countries to each other, are invalid. *Roe-buck v. Stirling*, 45; *Brown v. Annandale*, 433.

SPECIFICATION.

Origin of the specification; 8, n. & 36, n. c.

Period allowed for enrolment of specification, 49, n.

Time is given for enrolling the specification, that the inventor may experiment on and perfect his invention. *Liardet v. Johnson*, 54, n.

The object of the specification is, that after the term has expired the public shall have the benefit of the invention. *Arknwright v. Nightingale*, 61.

The meaning of the specification is, that others may be taught to do that for which the patent is granted, and if any material part of the process be omitted, the specification is bad. *Liardet v. Johnson*, 53.

As, the omitting to state the use of tallow, which the patentee employed for facilitating the manufacture of steel trusses. *Ibid.* 53.

Or, the omitting to state the use of a material, *aqua fortis*, which the patentee used for obtaining the effect more rapidly. *Wood v. Zimmer*, 82.

Or, if the patentee employ cheaper articles than those specified. *Turner v. Winter*, 81.

It is required as the price of the monopoly, that the patentee should enrol to the very best of his knowledge and judgment, the fullest and most sufficient description of the particulars upon which the effect depended, that he was enabled to do. *Liardet v. Johnson*, 54.

The most advantageous mode known to the inventor, and any circumstance conducive to the advantageous operation, must be stated. *Morgan v. Seaward*, 175 & 182.

The specification intended to teach the public; it must fully disclose the secret, and contain nothing materially false or defective. *R. v. Arknwright*, 66.

The specification must give the best mode known to the inventor, and must not mislead. *Walton v. Bateman*, 622.

The specification ought to be so clearly worded as to enable any person of sufficient understanding on the particular subject, to attain the result without doubt or difficulty, it being the price paid by the inventor for keeping the public out of the manufacture. *Gibson v. Brand*, 629.

Some knowledge is requisite in the person reading the specification, which is addressed to artists of competent skill in the particular manufacture. *Bickford v. Skewes*, 219.

The specification addressed to persons of skill in the subject-matter and particular trade. *Arknwright v. Nightingale*, 61; *Elliott v. Aston*, 224.

The specification must be sufficient for persons skilled in the subject. *Huddart v. Grimshaw*, 87.

The general test of sufficiency of the specification for mechanics or persons acquainted with the subject, limited by the condition, that they should be able to make the machine by following the directions of the specification, without any new inventions or additions of their own. *R. v. Arknwright*, 66.

Any material alteration to be made in existing apparatus or machines must be stated. *Ibid.* 67.

As, with reference to the materials employed, or their form, or the speed of the parts, or their relative dimensions. *Ibid.* 67.

The representation and description of parts of no use, or without distinguishing to what purposes they are to be applied, or for the purpose of puzzling, will render the patent void, the specification not affording that fair, full, and true discovery, which the public have a right to demand in return for the monopoly. *Ibid.* 69.

If that which is shown will not do of itself, but requires something to be added, the specification is bad. *Ibid.* 70.

If different parts are to move with different velocities, that must be stated. *Ibid.* 70.

If more parts be inserted than are necessary—as ten, where four are sufficient, the specification is void. *Ibid.*

Information must not be requisite from other sources. *Ibid.*

As, where a workman has learned to make the machine from seeing others make it. *Ibid.*

The specification must be such as can be followed by a person possessing the ordinary knowledge, common to the trade, without invention or addition, or setting himself to solve a problem. *Morgan v. Seaward*, 174.

Information acquired from other sources than the specification is to be excluded; but reasonable data must be given. *Ibid.* 179.

All extreme or exaggerated cases must be discarded, and the substance of the thing looked to. *Ibid.* 180.

It is not sufficient that a skilful person should be able to find it out; the invention must be effected by the directions contained in the specification. *Ibid.* 185.

The specification cannot be supported by the fresh invention and correction of a scientific person. To be valid, it must be such as, when fairly followed out by a competent workman, without invention or addition, the object of the patent may be obtained. *Neilson v. Harford*, 371.

By competent skill and knowledge are meant, ordinary skill and knowledge, such as that possessed by practical workmen; not the degree of skill which would enable a person on a mere hint to invent a machine for the purpose. *Ibid.* 314.

The specification being for the benefit of the trade must be sufficient for workmen competent to the ordinary business of that trade; first-rate engineers and common labourers must be excluded. *The Househill Company v. Neilson*, 692.

The compositions and proportions, where materials and quantity are of the essence of the invention, must be given. *Liardet v. Johnson*, 54, n.

As, in the case of a medicine or paint. *Ibid.* 54, n.

A specification which merely suggests something, so as to throw on the public the trouble of experiment, is bad. *Morgan v. Seaward*, 175.

A deviation from the precise dimensions shown so as to make different parts work together, is within the knowledge of any workman. *Ibid.* 176.

The omission to give directions as to matters within the knowledge of a workman, who would under ordinary circum-

stances be employed to carry out the invention, is no ground of invalidity. *Crossley v. Beverley*, 110, n. n.

The omission to mention in the specification anything which the patentee knows to be necessary for the beneficial enjoyment of the invention, is a fatal defect. *Neilson v. Harford*, 317 & 321.

But the omission to mention something, which contributes only to the degree of the benefit, provided the apparatus described would work beneficially and be worth adopting, is not a fatal defect. *Ibid.* 317.

The omission to mention the use of water twyres will not invalidate the specification, it appearing that a beneficial effect could be produced without such apparatus, and that any person acquainted with smelting knows, that if the heat is increased, recourse must be had to some method of guarding the pipe, and that the water twyre was well known as one mode for that purpose. *Ibid.* 318.

If the apparatus described can be used beneficially in its simplest form, it is no objection that great improvements may have been made. *Ibid.* 317.

Not necessary that the apparatus described should produce the greatest amount of benefit. *The Househill Company v. Neilson*, 695.

It is sufficient if persons acquainted with heating air would construct an apparatus productive of some benefit. *Ibid.* 694.

If experiments are necessary for the production of any beneficial effect, the patent is void. *Neilson v. Harford*, 320.

As, if a particular temperature be essential and not stated. *Ibid.* 318.

The specification need not describe that which is within the knowledge of any workman who would be employed to put up the apparatus. *Crossley v. Beverley*, 110, n. n.

As, a condenser, in constructing a gas apparatus. *Ibid.* 110, n. n.

A patentee is bound to insert in his specification the most improved means of carrying out his invention with which he is acquainted at the time of the enrolment of the specification. *Ibid.* 116.

As, the different mechanical contrivances for carrying out the principle in

respect of which he applied for his patent. *Ibid.* 116.

If it were otherwise, and if such contrivances must be the subject of fresh letters patent, the monopoly would be prolonged. *Ibid.* 116.

Time is allowed for the specification, in order that the invention may be brought to its greatest state of perfection. *Ibid.* 117.

All improvements made during the interval for enrolling the specification should be described. *Ibid.* 117.

The insertion or representation of anything as important, not being so in fact, will vitiate the specification. *Huddart v. Grimshaw*, 93.

Letters patent are void if the specification be ambiguous, or give directions which tend to mislead the public. *Turner v. Winter*, 77.

As, where a generic term 'fossil salt,' is employed, but one species only, 'sal gem,' will succeed. *Ibid.* 80.

Or, when one of several articles named will not succeed. *Ibid.* 81.

Where the specification directed the use of a substance, bituminous schistus, saying, the carbonization has nothing particular, only it is convenient before carbonization to separate the sulphates of iron which are mixed with it, and it appeared that all bituminous schistus had such sulphates, and that no easy means were generally known of removing them, and that without their removal the schistus could not be efficaciously used; the specification held insufficient. *Derosne v. Fairie*, 157.

If a substance as generally known contain foreign matter, the presence of which is positively injurious, the plaintiff must show that a method of easily removing such foreign matter is known. *Ibid.* 162.

Aliter, if such foreign matter interfere to a limited extent only with the degree of benefit. *Ibid.* 159.

The substances named must answer the purpose proposed beneficially. *Ibid.* 163, 164.

A specification must state at least one method which will succeed. *Ibid.* 165.

All the substances which will answer the purpose of the invention need not be stated, only the public must not be misled. *Bickford v. Skerres*, 218.

But if a whole class of substances be stated as suitable, and any one of them will not answer, the specification is bad, as misleading the public. *Ibid.* 218.

The plainest and most easy way of production must be stated, and if obscure terms be employed for the sake of concealment, so as to induce the belief that elaborate processes are necessary, when the simplest will succeed, the specification is bad. *Savory v. Price*, 83.

If a patentee states that he prefers a certain material, having ascertained that no other would answer, he misleads the public. *Crompton v. Ibbotson*, 83.

If an article be described by a particular name, the patentee knowing that the requisite article cannot be ordinarily procured under the name by which it is described in the specification, and it be not stated where it may be procured, the public have not that full and precise information which they have a right to require. *Sturtz v. De la Rue*, 83.

A studied or manifest ambiguity will vitiate. *Gallouay v. Bleaden*, 524.

It is no objection *prima facie* to a specification, that it contains terms of art requiring explanation. *Derosne v. Fairie* 157.

A specification containing scientific terms, which are not understood except by persons acquainted with the nature of the business, is not bad because an ordinary person does not understand it provided a scientific person does; but a specification using common language and stating that by which a common man may be misled, though a scientific man would not, when it does not profess to use scientific terms, and an ordinary man is misled by it, would not be good. *Neilson v. Harford*, 341.

If the invention be an improvement, it must distinctly appear on the face of the specification as such, and not as an original discovery. *Hill v. Thompson*, 247.

The specification must inform the public what is new and what old. *Macfarland v. Price*, 74.

A person is to be warned by the specification against the use of the particular invention. *Ibid.*

A specification describing a machine as a whole is sufficient, though the invention be an improvement on a former patent. *Harnar v. Playne*, 75.

The specification is to warn the public of what is prohibited, and to teach them the invention. *Morgan v. Seaward*, 173.

The specification must distinguish between what is new and old; if not, the presumption is, that the patent extends to the whole and to each part. *Carpenter v. Smith*, 532.

A mistake in a specification does not of necessity vitiate letters patent, as, where air was called an imponderable substance, or sulphur a mineral. *Neilson v. Harford*, 340.

Semble, That a mistake in respect of a matter foreign to the invention, and which cannot mislead, will not vitiate the specification. *Ibid.* 353.

The inaccurate use of words, if explained by the context, will not vitiate a specification. *Ibid.* 369.

Semble, That the evidence of a person of ordinary skill cannot be allowed to contradict or correct the plain grammatical sense of one part of the specification. *Ibid.* 329.

The sufficiency of the specification in matters of description is a question for the jury. *Walton v. Potter*, 595.

In the absence of evidence on the part of the defendants, that persons have been misled by the specification, it is sufficient for the plaintiff to call persons who say, that to them it is clear. *Cornish v. Keene*, 502.

The attention of the plaintiff must be fully and clearly directed to the objection to the specification. *Bickford v. Skemes*, 219.

The finding of the jury on an objection as to the distinctness of the specification is conclusive. *Ibid.* 220.

STAY OF PROCEEDINGS.

See ACTION; SCIRE FACIAS.

SUBJECT-MATTER.

A new trade, or engine tending to the furtherance of a trade. *Darcy v. Allin*, 6; *Crane v. Price*, 411.

As the trade of making and selling frisadoes. *Hastings' patent*, 6.

The use of a sieve for melting lead. *Humphrey's patent*, 7.

The working, making, and compounding smalt within the realm. *Baker's patents*, 9, 11, & 13.

The working or making of any manner of new manufacture within the realm. (Stat. 21 Jac. 1, c. 3, s. 6.) 31.

An addition to, or an improvement on, an existing invention. *Morris v. Branson*, 51.

Or, on an existing patent. *Crane v. Price*, 413; *Ibid.* n. o.

A method of operating and manufacturing, producing no new substance, and employing no new machinery. Per *Eyre*, C. J., 56, n.

A new process to be carried on by known apparatus, acting on known substances, and producing a known article, but in a cheaper, better, or more expeditious manner. *Crane v. Price*, 409.

As, welding iron tubes by fixed dies instead of by rollers. *Russell v. Conley*, 466.

Or, welding without, or by the omission of a maundril, in manufacturing welded iron tubes. *Ibid.* 466.

Any thing material and new, and an improvement of the trade. *R. v. Arkwright*, 71.

Two grounds for a patent, improvement and discovery; the former in respect of something already known, the latter in respect of something absolutely new. *Hill v. Thompson*, 244.

A new combination of materials previously in use for the same purpose, or for a new method of applying such materials. *Ibid.* 237.

As, the combination of hot blast and stone coal in the manufacture of iron. *Crane v. Price*, 409.

The new use of a known thing, as of an old wheel on a railroad, not the subject of letters patent. *Losh v. Hague*, 208.

The discovery of a principle as a law or property of matter, unless it be also applied to the practical purposes of the arts, not any manner of manufacture. *The Househill Company v. Neilson*, 683.

See ADDITION, COMBINATION, IMPROVEMENT, MANUFACTURE, OMISSION.

TERM OF LETTERS PATENT.

For 21 years to Baker & Others, 3 Jac. 1 (A. D. 1606). *Baker's patent*, 9.

For 31 years, 6 Jac. 1 (A. D. 1609). *Ibid.* 11.

For 31 years, 16 Jac. 1 (A. D. 1619). *Ibid.* 13.

For 14 years, 19 Jac. 1 (A. D. 1622). *Dudley's patent*, 14.

For 15 years (21 Jac. 1). *Mansell's patent*, 22.

For 14 years or under (Stat. 21 Jac. 1, c. 3). 31.

The term of 14 years too long. 36, n. c.

As to the terms of letters patent for Scotland, 341.

TIME (COMPUTATION OF).

The condition for the enrolment of the specification within two calendar months, next and immediately after the date of the letters patent, is satisfied by the enrolment on that day two months. *Derosne v. Fairie*, 154, n. a, d, & 156, n.

Letters patent being dated the 10th of May, the proviso for the enrolment within one calendar month after the date of the patent is satisfied by enrolment on the 10th of June. *Watson v. Pears*, 154.

TITLE.

Misdescription in the title is fatal, as where a brush was improperly described as a tapering brush. *R. v. Metcalf*, 141, & 333.

Quere, The authority of this case, 333.

The specification is to be taken in connexion with the letters patent in determining the validity of the patent in respect of its title. *Neilson v. Harford*, 312.

Generality of title no objection, if honestly employed. *Ibid.* 312.

The title need not give any idea of the invention; it is sufficient if the specification be consistent with it. *Ibid.* 333.

Ambiguity in the title, if explained by the specification, will not vitiate the patent. *Ibid.* 373.

The title of the patent should disclose the object of the invention. *The Househill Company v. Neilson*, 678.

An objection to the title not let in by a plea of the insufficiency of the specification. *Derosne v. Fairie*, 161.

An improvement in the final result may be supported by an improvement in any one of the several processes. *Ibid.* 162.

Letters patent for certain improvements in carriages, the invention being applicable to certain descriptions only of carriages, are not thereby invalid. *Cook v. Pearce*, (MSS.)

See CONSTRUCTION.

TRADE.

A known trade, as the making of cards, cannot be restrained but by parliament. *The Case of Monopolies*, 2 & 3.

A new trade, or engine tending to the furtherance of a trade, the subject of letters patent. *Darcy v. Allin*, 6; *Crane v. Price*, 411.

Any thing material and new, which is an improvement of the trade, will be sufficient to support a patent. *R. v. Arkwright*, 71.

UNION (ACTS OF).

Articles of acts of union (Scotland and Ireland), relating to patents, 453.

Since the union, the practice as to patents has been the same both in England and Scotland. *Morton v. Barclay*, 49.

The great seals of the three countries distinct for the purpose of patents, notwithstanding the act of union. *Universities of O. & C. v. Richardson*, 48.

Quere, As to the effect of the Scotch act of union. *Ibid.* 49.

USELESSNESS.

See FAILURE OF CONSIDERATION.

The uselessness of part of the invention will not vitiate the grant. *Lewis v. Marling*, 491.

A monopoly in respect of an invention altogether useless may be mischievous to the state. *Morgan v. Seaward*, 197.

USER.

Private or Secret.

The use of an invention in private or secret will not vitiate letters patent granted to a subsequent independent inventor. *Dollond's case*, 43.

The user of a process in secret by an inventor for the purposes of commerce, the article so made being sold or used in public, will vitiate letters patent subsequently granted to such inventor. *Tennant's case*, 125; *Morgan v. Seaward*, 194; *Roebuck v. Stirling*, 45, n. b.

Otherwise an inventor might secure to himself a monopoly for a longer period than fourteen years. *Morgan v. Seaward*, 194.

That which is confined to the knowledge of the party and not communicated to the public, is not, properly speaking, discovery. *Hill v. Thompson*, 244.

The construction of a pair of wheels for a steam boat by an engineer and his servants, under an injunction of secrecy, the injunction being observed, is not a public user of the invention. *Morgan v. Seaward*, 194.

The construction by the patentee of two or three of his improved apparatus, prior to the patent, is not such a use of the invention as will vitiate the letters patent. *Bramah v. Hardcastle*, 194.

Semble, That previous private user cannot be restrained by letters patent subsequently granted to an independent inventor. *Hill v. Thompson*, 240.

A party cannot be restrained by a subsequent patent from going on with that which they were doing before. *Cornish v. Keene*, 511.

Public.

Public use is a use in public as distinguished from a use in private and secret; it does not mean a general use and adoption by the public. *Carpenter v. Smith*, 534.

The use of a lock in such a situation that the public might see it, is a public use and exercise of the invention. *Ibid.* 540.

The manufacture and sale without secrecy by a workman of several dozen of locks according to a model which is retained, is a public use and exercise of the invention. *Ibid.* 540.

Public use is a use in public so as to come to the knowledge of others. *Ibid.* 543.

The prior public use of the same instrument, an answer to an action for a breach of a sole or exclusive privilege. *Humphrey's case*, 7.

The manufacture in the way of trade of substantially the same article prior to the date of the patent, will defeat the exclusive right. *Hastings' case*, 6.

Prior public use of an invention in one part of the United Kingdom will vitiate letters patent for any other part. *Brown v. Annandale*, 33.

Query, Whether prior public use by the inventor himself in one portion of the United Kingdom will vitiate letters patent granted subsequent to such use for another portion of the realm. *Ibid.* 454.

The publicly making and selling an article, though there may be no demand or use for it at the time, will vitiate subsequent letters patent. *Losh v. Hague*, 205.

The question of public use is for the jury; as, whether the instances adduced show a manufacture to have been in public use, or only that various experiments had been made and abandoned. *Elliott v. Aston*, 224; *Cornish v. Keene*, 519.

UTILITY.

Some degree of utility an implied condition of the grant of letters patent. 7 & 8, n.; 31, n. p.

The degree of utility is not material; it is sufficient to support a patent if the invention be an improvement. *Morgan v. Seaward*, 172.

Or, of any use. *Ibid.* 186.

The fact of an invention not coming into use raises a strong presumption against its utility. *Ibid.* 185; *In re Simister's patent*, 723.

Semble, That the question of utility is a compendious mode of deciding the question, whether the patent is void under the statute of monopolies? *Morgan v. Seaward*, 197.

It is not always necessary to entertain the question of utility. *Cutler's patent*, 426.

Utility is not a condition imposed by the statute which is satisfied if the invention be new. *Lewis v. Marling*, 497.

Not essential to the validity of a patent, that the invention should be useful for all the cases to which it is proposed as applicable. *Haworth v. Hardcastle*, 480.

A finding of the jury, that the invention is useful on the whole, but fails, or is not useful in some cases, is not a ground of nonsuit. *Ibid.* 483.

If any thing claimed as essential turn out to be useless, the patent is voidable, but *aliter* if not described as essential. *Lewis v. Marling*, 495.

The subsequent discovery that something described may be dispensed with, will not vitiate a patent if there has been no deception. *Ibid.* 496.

A patent being for an improvement on a former patent, it is not material whether a machine made according to the specification of the first patent would be useful or not, if it be shown that a machine constructed according to the subsequent patent is useful. *Lewis v. Davis*, 489.

It is not necessary that the vessel described should have been actually tried and proved to answer; the evidence of scientific persons, that it would answer, may be sufficient. *Neilson v. Harford*, 316.

If any material part of the alleged discovery fail, the patent is void. *Hill v. Thompson*, 249.

VALIDITY.

Conditions of validity at common law and by statute. 7, n.; 29, n. l.

See INVENTOR. GRANTEE.

The term at common law, to be such reasonable period as might suffice for others to learn the trade. 36, n. e.

The term by statute, not to exceed fourteen years. 8, n.

See TERM.

The subject-matter at common law, a new trade, or engine tending to the furtherance of a trade. *Darcy v. Allin*, 6.

The subject-matter by statute, any manner of new manufacture (21 Jac. 1, c. 3, s. 6). 31.

See SUBJECT-MATTER.

If the crown be deceived, the grant is void. *Case of Monopolies*, 3.

See FALSE SUGGESTION.

Some degree of utility an implied condition of the grant. 7, n. & 8; 31, n. p.

See UTILITY.

A grant of a monopoly for an invention altogether useless, is invalid. *Morgan v. Seaward*, 197.

See USELESSNESS.

The invention must be both new and useful, and the specification must accurately describe it. *Hill v. Thompson*, 237.

See NOVELTY. SPECIFICATION.

VENUE.

Changed under special circumstances. *Bickford v. Skewes*, 214.

VERDICT.

A verdict for the plaintiff involves the validity of the patent, subject to every legal consideration and the infringement. *Hill v. Thompson*, 242.

Query, Whether the plaintiff can have a verdict on the plea of not guilty, although the patent is invalid, and the defendant has a verdict on the issues as to novelty. *Sandiford v. Neild*, 311, n. i.; *Neilson v. Harford*, 311.

See JURY.

WORD.

The inaccurate use of words, the sense in which they are employed being clear, will not vitiate a specification. *Derosne v. Fairie*, 157; *Minter v. Mower*, 141.

As, the calling a known thing by a wrong name, the drawing annexed showing what was intended; or the calling sulphur a mineral, or the air imponderable. *Neilson v. Harford*, 340, & 369.







